Intermec 条码打印机免费服务热线：400-1166-021

Intermec

User's Guide

EasyCoder® PM4i Bar Code Label Printer (IPL Version)

IntermecTechnologiesCorporation

WorldwideHeadquarters
600136thAve.W.
Everett,WA98203
U.S.A.

www.intermec.com

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Before You Begin

This section provides you with safety information, technical support information, and sources for additional product information.

Safety Information

Your safety is extremely important. Read and follow all warnings and cautions in this document before handling and operating Interme equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

Do not repair or adjust alone

Do not repair or adjust energized equipment alone under any circumstances. Someone capable of providing first aid must always be present for your safety.

First aid

Always obtain first aid or medical attention immediately after an injury. Never neglect an injury, no matter how slight it seems.

Resuscitation

Begin resuscitation immediately if someone is injured and stops breathing. Any delay could result in death. To work on or near high voltage, you should be familiar with approved industrial first aid methods.

Energized equipment

Never work on energized equipment unless authorized by a responsible authority. Energized electrical equipment is dangerous. Electrical shock from energized equipment can cause death. If you must perform authorized emergency work on energized equipment, be sure that you comply strictly with approved safety regulations.

Safety Icons

This section explains how to identify and understand dangers, warnings, cautions, and notes that are in this document. You may also see icons that tell you when to follow ESD procedures.

A warning alerts you of an operating procedure, practice, condition, or statement that must be strictly observed to avoid death or serious injury to the persons working on the equipment.

A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

This icon appears at the beginning of any procedure in this manual that could cause you to touch components (such as printed circuit boards) that are susceptible to damage from electrostatic discharge (ESD). When you see this icon, you must follow standard ESD guidelines to avoid damaging the equipment you are servicing.

Note: Notes either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

Global Services and Support

Warranty Information

To understand the warranty for your Intermec product, visit the Intermec website at **www.intermec.com** and click **Support > Returns and Repairs > Warranty**. The Intermec Global Sales & Service page appears. From the Service & Support menu, move your pointer over **Support**, and then click **Warranty**.

Web Support

Visit the Intermec website at **www.intermec.com** to download our current manuals in PDF format. To order printed versions of the Intermec manuals, contact your local Intermec representative or distributor.

VisittheIntermectechnicalknowledgebase(Knowledge Central)atwww.intermec.comandclickSupport>Knowledge Centraltoreviewtechnicalinformationortorequesttechnical supportforyourIntermecproduct.

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Theseservicesareavailablefrom Intermec.

Services	In the USA and Canada call 1-800-755-5505 and
OrderIntermec products	• Placeanorder.
OrderIntermec media	Orderprinterlabelsand
Orderspare parts	
Technical Support	
Service	
Servicecontracts	• Askaboutanexisting contract. • Renewacontract. • Inquireaboutrepair billingorotherservice invoicingquestions.

OutsidetheU.S.A.andCanada, contactyourlocalIntermec representative. Fortechnicalsupportin SouthKorea, seethenext section. Tosearchforyourlocalrepresentative, fromthe Intermecwebsite, clickContact.

Service Location Support

FortechnicalsupportinSouthKorea, usetheafterservice locationslistedbelow:

AWOOSystems
102-1304SKVentium
522Dangjung-dong
Gunpo-si,Gyeonggi-doKorea,South435-776
Contact:Mr.SinbumKang
Telephone:+82-31-436-1191
E-mail:mjyun@awoo.co.kr

INInformationSystemPTDLTD
6thFloor
DaeguVentureCenterBldg95
Shinchun3Dong
Donggu,DaeguCity,Korea
E-mail:jmyou@idif.co.krorkorlim@gw.idif.co.kr

Who Should Read This Manual

Thismanualisforthepersonwhoisresponsibleforinstalling, configuring,andmaintainingtheEasyCoderPM4iprinter.

Thismanualprovidesyouwithinformationaboutthefeaturesof theEasyCoderPM4iprinter,andhowtoinstall,configure, operate,maintain,andtroubleshootit.

BeforeyouworkwiththeEasyCoderPM4iprinter,youshould befamiliarwithyournetworkandgeneralnetworkingterms, suchasIPaddress.

Related Documents

TheIntermecwebsiteatwww.intermec.comcontainsour documents(asPDFfiles)thatyoucandownloadforfree.

To download documents

1 VisittheIntermecwebsiteatwww.intermec.com.

2 Click**Support**>**Manuals**.

3 Inthe**SelectaProduct**field,choosetheproductwhose documentationyouwanttodownload.

TоorderprintedversionsoftheIntermecmanuals,contactyour localIntermecrepresentativeordistributor

1 Introduction

ThischapterintroducestheEasyCoderPM4iprinter.The chaptercoversthefollowingtopics:

- DescriptionofEasyCoderPM4i
- Safetysummary
- Productidentification

Description of EasyCoder PM4i Printer

TheEasyCoderPM4iisasturdythermaltransferprinterwitha printheadresolutionof8dots/mm=203.2dots/inanda maximumprintwidthof104mm(4.095in).Itoffersalarge numberofusefulfeatures,suchas:

- FlashmemorySIMMsforfirmware,fonts,barcodes,and applicationprograms
- Built-inCompactFlashmemorycardadapterforfirmware upgrading
- Built-inRS-232interface
- Provisionforextrainterfaceboardsincludingwiredand wirelessEasyLANconnections.
- Keyboardanddisplaywithbacklightforimproveduser interface.

Alargenumberoffactory-installedorfield-installableoptionsare available,sotheprintercanbeconfiguredforawiderangeof applications.See “Troubleshooting” onpage71and “Technical Data” onpage103formoreinformation.

TheEasyCoderPM4isupportstheIntermecProgramming Language(IPLv2.30).AversionofEasyCoderPM4i,that supportsIntermecFingerprintv8.30,isdescribedinaspecial User’sGuide.

Safety Summary

IntermecassumesnoresponsibilityregardingtheCEDirectiveif theprinterishandled,modified,orinstalledinanywayother thanthatdescribedinIntermec’smanuals.

- Readthismanualcarefullybeforeconnectingtheprinter.
- Movingpartsareexposedwhenthesidedoorsareopen,so ensurethatthedoorsareclosedbeforeyouoperatetheprinter.
- Donotopenthefront/left-handcover.Dangerousvoltage!
- Donotremovethebottomplate.Dangerousvoltage!
- Donotputyourfingersinsidetheprintmechanismwhenthe powerison.

- Makesurethatthesidedoorcannotunintentionallyswing downwhenyouhaveyourfingersorhandsinsidethemedia compartment.Riskofinjurybecauseoftheweightoftheside door!
- Placetheprinteronanevensurfacewhichcansupportits weightofapproximately13.5kg(30pounds)plussupplies.
- Donotspraytheprinterwithwater.Ifyouareusingahoseto cleanthepremisesinanindustrialenvironment,removethe printerorprotectitcarefullyfromsprayandmoisture.
- Carefullyreadthewarningtextontheenvelopebeforeusinga cleaningcard.

Product Identification

Themachinelabelisattachedtotheprinter’srearplateand containsinformationontype,model,andserialnumberaswell asACvoltage.Italsocontainsvarioussignsofapproval.

2 Installation

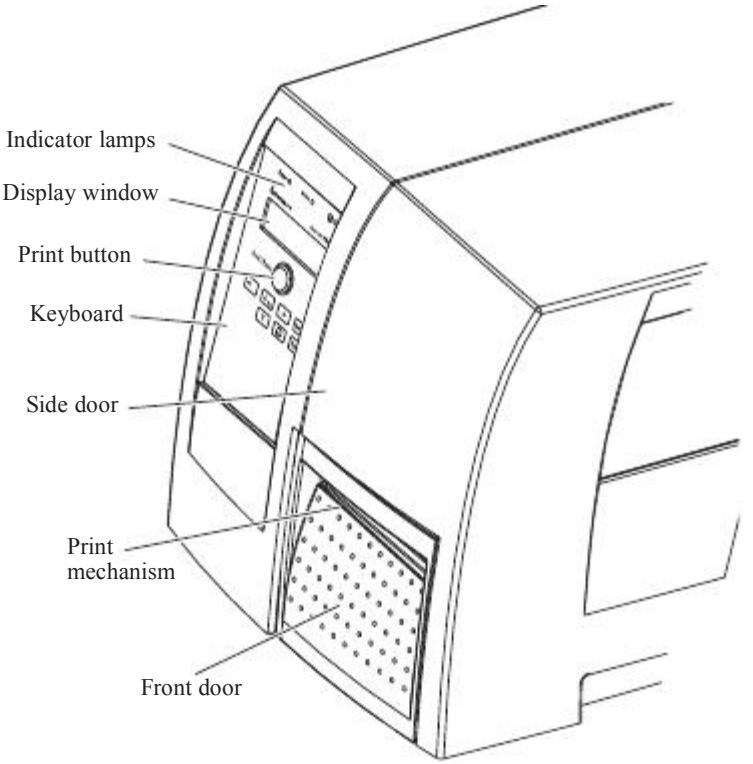
ThischapterexplainshowtounpackandinstalltheEasyCoder PM4iandalsodescribestheprinter’svariouspartsindetail.It coversthefollowingtopics:

- Partsontheprinter’sfront
- Partsontheprinter’srearplate
- Partsinthemediacompartment
- Partsintheprintmechanism
- Connectingtheprinter
- Usingthecontrolsandunderstandingtheindicators

Front View

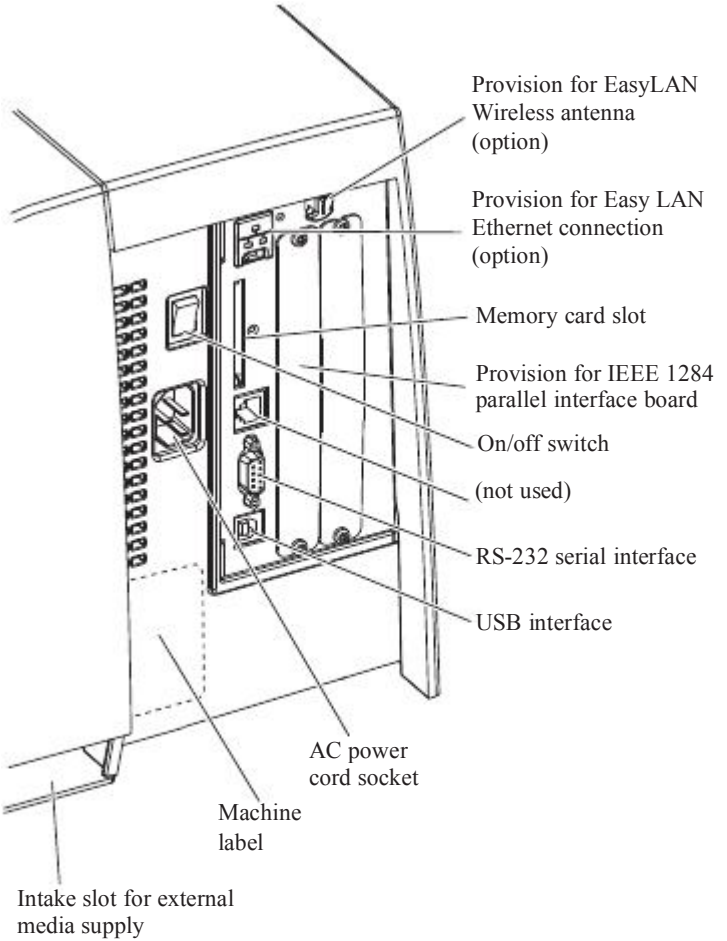
Atthefrontoftheprinterarethedisplaywindow,theindicator lamps,andthekeyboard.Thesefeaturesallowtheoperatorto controlandsetuptheprintermanually.

Theprintedlabels,tickets,ortagsarepresentedatthefrontof theprintmechanism,whichiscoveredbyadoor.



Rear View

TherearplatecontainstheOn/Offswitch,theACpowercord socket,andvariousinterfaceconnectorsandslots.

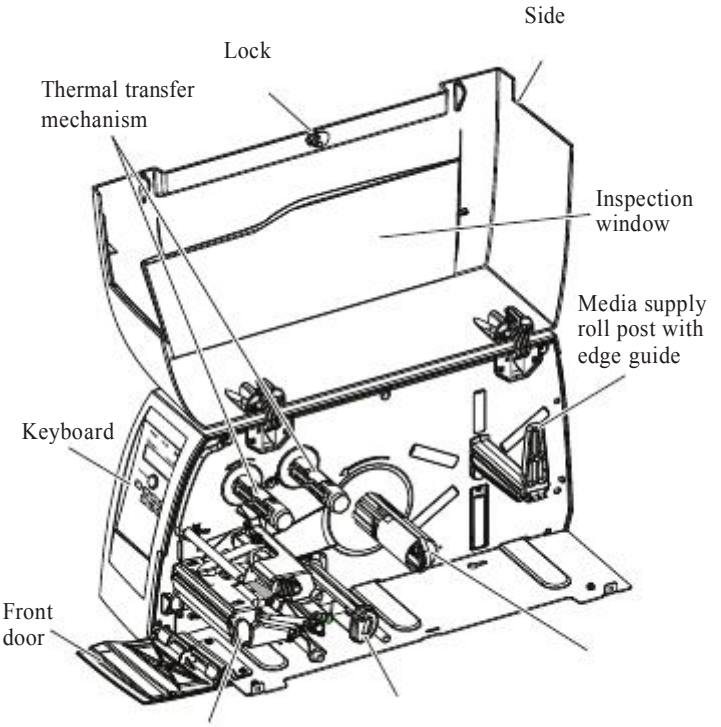

Provision for EasyLAN Wireless antenna (option)
Provision for Easy LAN Ethernet connection (option)
Memory card slot
Provision for IEEE 1284 parallel interface board
On/off switch
(not used)
RS-232 serial interface
USB interface
AC power cord socket
Machine label
Intake slot for external media supply

Media Compartment

Description

Themediacompartmentiscompletelycoveredbyadoorthat canbeopened180° upwardstoprovidefullaccessformediaand ribbonloadandhasaninspectionwindowforcheckingthe mediaandtransferribbonsupplies.

Themediacanbesuppliedfromapostor,optionally,froman externalsupplyoffanfoldsbehindtheprinterusinganinternal mediaguidedevice.Thereisalsoanoptionalrotatingmedia supplyhub.Alsosee “Options” onpage67.

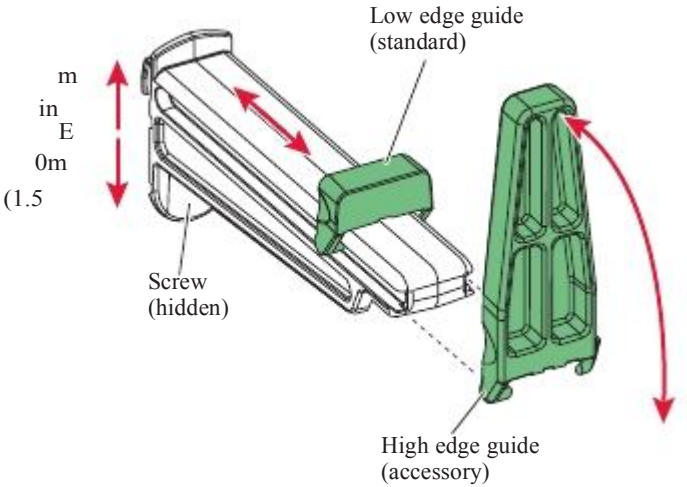


Media Supply Roll Post

Themediasupplyrollpostfitsboth38-40mm(1.5in)and76 mm(3.0in)coresbecauseitcanbemovedupordowninaslot inthecentersection.Thebottompositionisintendedforsmall coresandthetoppositionisforlargecores.Thepostislockedby astraight-slotscrew.

Theposthasamoveableedgeguidetofitvariousmediawidths. Asstandard,alowguideisfactory-fittedonthepostandahigh guideispackedseparatelywiththeotherprinteraccessories. Whenswitchingtheedgeguide,becarefulnottobreakit.Inthis manual,thehighedgeguideisgenerallyillustrated.

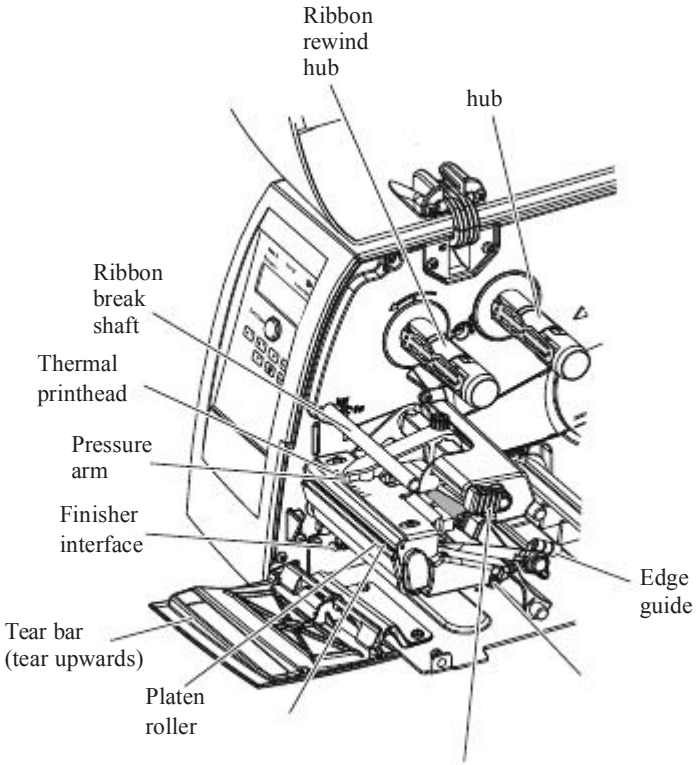
Whentheedgeguideisinitsoutermostposition,itcanbetilted downtoahorizontalattitudetoallowremovaloftheemptycore andloadingofanewmediaroll.Afterloadingthemediaroll,tilt uptheedgeguideandpushitinwardssothemediarollbecomes flushwiththecentersection.Thelowedgeguideallowsmedia rollswith3-incorestobeloadedwithouttiltingdowntheguide.



Optionally,theprintercanbefittedwithan1.5-inrotating mediasupplyhubinsteadofapostandapapersensor,which detectswhentheremainingamountofmediahasreachalevel specifiedintheSetupMode.Therearealsoa3-inadapteranda labelrollretainer.Anotheroptionisaninternalguideformedia placedbehindtheprinter(forexamplefanfolds).For illustrations,see “Options” onpage67.

Print Mechanism

Theprintmechanismfeaturesahigh-performancethermal printheadwithquick-mountfittingstofacilitatereplacement.



Connections

Power

To connect the power

1 Place the printer on a level surface, near an AC outlet. You should be able to easily access the printer to load media and to remove the printout.

2 Check that the printer is switched off.

3 Connect the power cord from the socket on the rear plate to an electrical outlet (90 to 265 VAC).

Computer

The Easycoder PM4i is fitted with one 9-pin D-style subminiature (DB9) socket for the RS-232 serial interface port (For help, see "Interfaces" on page 119.).

RS-232 Serial Interface Before you can use the serial interface, you may need to set up the communication parameters, such as baudrate, parity, etc. as described in "Setting Up the Printer" on page 47.

USB Interface

The printer supports USB v1.1. There is no communication setup for USB. For more information, refer to Appendix C.

Optional Interface and Network Boards

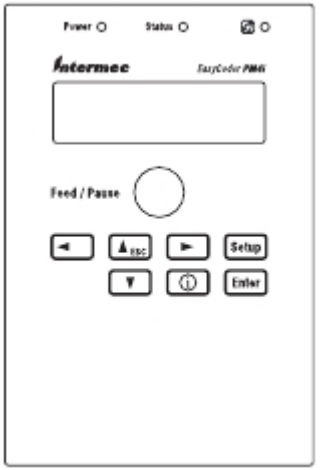
Several types are available (see "Options" on page 67). Refer to Chapter 6, Chapter 7, and Appendix C for connection and setup instructions.

The printer scans all communication ports. When it detects incoming data on a port, the printer automatically switches to use that port for both input and output. Use the **i** key to get information on the active communication channels.

Switch off both PC and printer before connecting them together.

Controls and Indicators

TheEasyCoderPM4ihasseveralwaysofcommunicatingdirectly withitsoperator:threecoloredindicatorlamps,adisplay window,amembrane-switchkeyboardwith8keysandbuttons ontheprinter’sfront,andabeeper.



Indicator Lamps

TheindicatorsarecoloredLEDs(LightEmittingDiodes)andare usedforthefollowingpurposes:

LED
Power
Status
Status
Status
IntermecReady-to-WorkIndicator

TheIntermecReady-to-WorkIndicator™helpsusersquickly determinethereadinessoftheIntermecdeviceindividuallyand aspartofasolution.TheIntermecReady-to-WorkIndicatorhas threedifferentstates:On,Blinking,andOff.WhentheIndicator isoff,thedeviceisnotreadytooperateindividuallyoraspartof asolution.WhentheIndicatorisblinking,thedevicemaybe initializing,waitingforexternalresources,orinneedofuser attention.AndwhentheIndicatorisOn,thedeviceisreadyfor useaspartofasolution.AlsoseeChapter9.

Display

ThedisplaywindowcontainsanLCD(LiquidCrystalDisplay) withbackgroundilluminationandtwolinesoftext,eachwith16 characters.Itshowsamessagewhencertainerrorsoccurand guidestheoperatorthroughupgrading,startup,andsetup.The followingerrorsarereported:

Error
Empty/Paused
Outofmedia
Outofribbon
Printheadlifted
Cuttererror
Ribbonfitted
Paperfault
Powersupplyerror
Powersupplytoohot
Printheadtoohot

Keyboard

Thekeyboardisofthemembrane-switchtypeandhas7keys. Thekeyboardissupplementedbyalarge**Feed/Pause**button. Somekeyshavehard-codedfunctionsinthestartupandsetup modes.

Button
Feed/Pausebutton

Keyboard Color
Yellow
Green
White technicianlevel)

Beeper

Thebeeperacknowledgesthatakeyhasbeenpressed.Optionally, anaudiblealarmcanbeenabledusinganIPLcommand.Itwill startbeepingatpaperoutandribbonoutandwillcontinue beepinguntilthestartofreload.

3 Starting Up

Thischapterexplainshowtostartuptheprinterafterinstallation orafterhavingbeenswitchedoff.

Switching On the Printer

Beforeswitchingontheprinter,makethenecessaryconnections, insertanymemorycardyouwanttouse,andcheckthatthe printheadisengaged.

SwitchonthepowerusingtheOn/Offswitchontherearplate. The “Power” controllamponthefrontpanellightsupwhenthe powerison.Waitforafewmoments,whiletheprinterloadsthe programandrunssomeself-diagnostictests:

```
Starting
```

Afterashorttime,theprinterisinitialized.Theprogressofthe initializationisindicatedbyanincreasingnumberofcolonson thelowerlineinthedisplay:

```
Initializing
```

```
:::
```

Whentheinitializationiscompleted,alabelisfedout.The followingmessageappears,indicatingthattheprinterisreadyfor operation.

```
IPL 2.30
```

ThemessageindicatestheIPLversionnumber.

```
ENTER=SHELL
5 sec. v. 8.2
4 sec. v. 8.2
3 sec. v. 8.2
2 sec. v. 8.2
1 sec. v. 8.2
```

4 Media Load

Thischapterexplainshowtoloadtheprinterwithmedia,thatis labels,tickets,tag,orstrips,forthefollowingmodesofoperation:

- Tear-Off(straight-through)
- Peel-Off(self-strip),requiresoptionalintegralself-stripunit withlinertakeup
- Cut-Off(requiresoptionalcutter)
- Externalsupply(fanfolds),fanfoldguideavailableasoption

Tear-Off (Straight-Through)

TheEasyCoderPM4icanprintonlabels,tickets,tags,and continuousstockinvariousforms.Thissectiondescribesthecase whenthemediaistornoffmanuallyagainsttheprinter’stearbar. Thismethodisalsoknownas“straight-throughprinting.”

Tear-offcanbeusedfor:

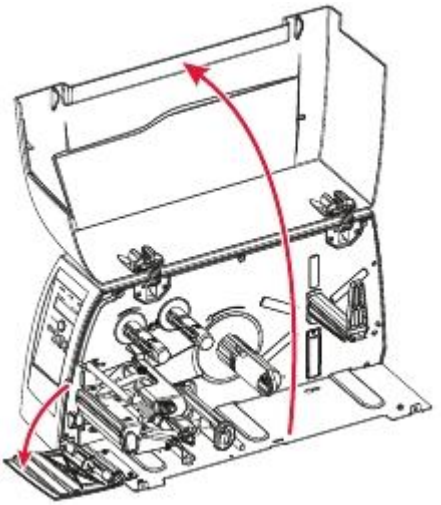
- Non-adhesivecontinuousstock
- Self-adhesivecontinuousstockwithliner
- Self-adhesivelabelswithliner
- Ticketswithgaps,withorwithoutperforations
- Ticketswithblackmarks,withorwithoutperforations

Anoptionallabeltakensensorcanholdtheprintingofthenext copyinthebatchuntilthepresentcopyhasbeenremoved,see “Options” onpage67.

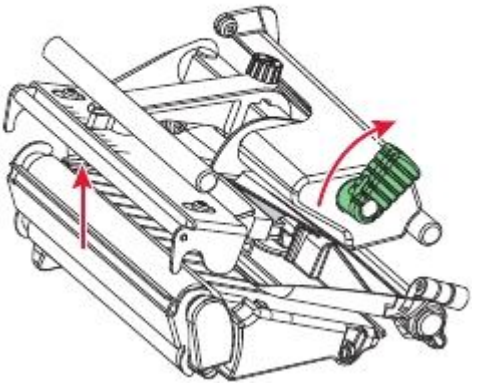
Note: Savethelabelindicatingthesensitivitynumberattachedto themediaroll.Youwillneedthisnumbertosetthemedia sensitivity,seeAppendixD.

To load tear-off media

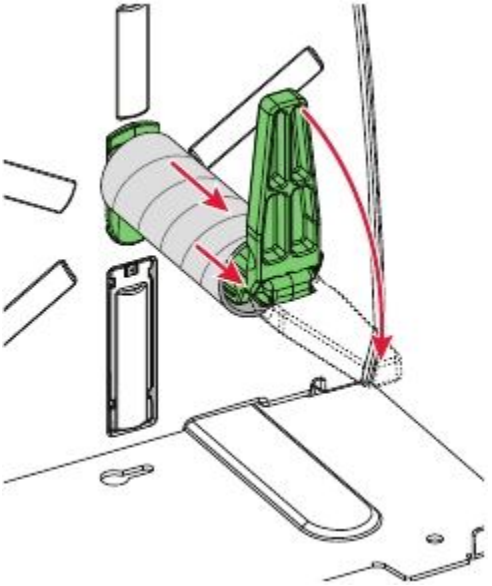
1Openthefrontandsidedoors.



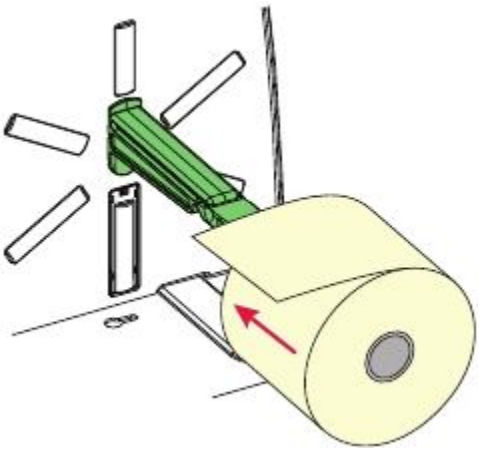
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



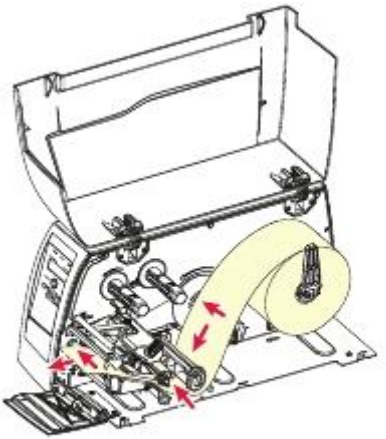
3Pullouttheedgeguideasfarasitgoesandfolditdowntoa horizontalposition.Removeanyemptycorefromthemedia supplyrollpost.



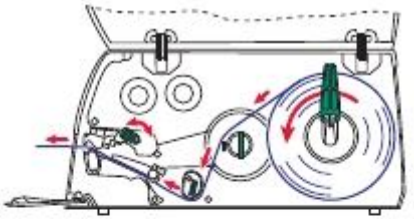
4Fitanewrollofmediaonthesupplypost.Foldupandadjust theedgeguidesotherollbecomesflushwiththecenter section.



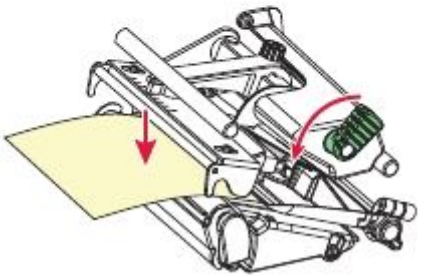
5Routethemediathroughtheprintmechanismandpushit towardsthecentersectionasfarasitgoes.



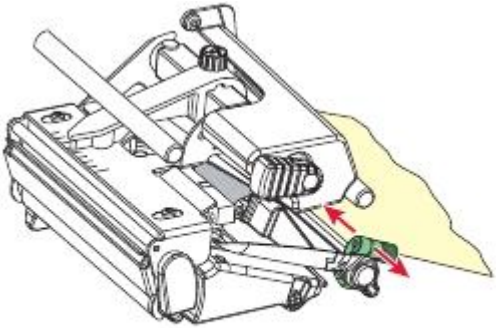
6Thisdiagramshowsthemediapath.



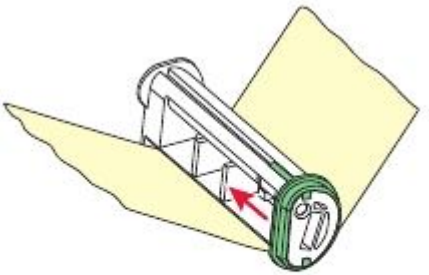
7Turntheprintheadliftlevercount.



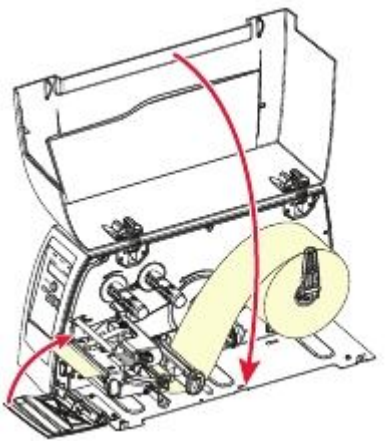
8Adjustthepositionofthegreenedgeguidesothemediais guidedwithaminimumofplay.Lockwiththenut.



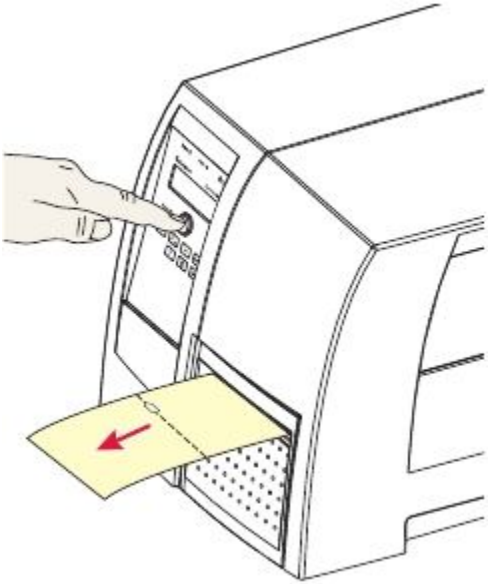
9Adjustthepositionoftheedgeguideonthelabelslack absorberaccordingtothewidthofthemedia.



10Closethefrontandsidedoor,makingsurethatthemedia runsthroughtheslotinthefrontdoor.



11 Press the **Feed/Pause** button to advance the media and adjust the media feed. Tear off the media by pulling it downwards.



Peel-Off (Self-Strip)

The EasyCoder PM4i can print on labels, tickets, tags, and continuous stock in various forms. This section describes the case when self-adhesive labels are separated from the liner immediately after printing, which requires optional integral self-strip unit with liner takeup. This is also known as “Self-strip” operation.

Peel-off operation cannot be performed when an optional fanfold guide fitted.

Peel-off can only be used for:

- Self-adhesive labels with liner

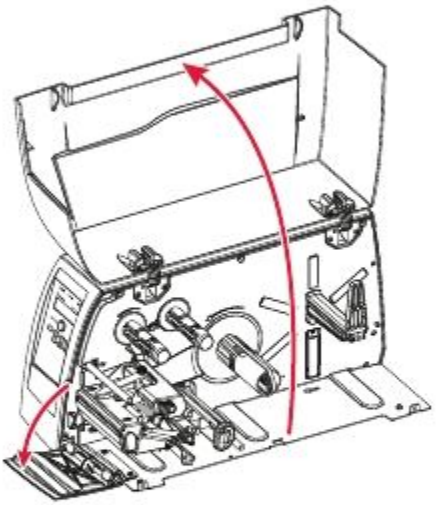
An optional label-taken sensor can hold the printing of the next label in a batch until the present label has been removed, see “Options” on page 67.

Note: Save the label indicating the sensitivity number attached to the media roll. You will need this number to set the media sensitivity, see Appendix D.

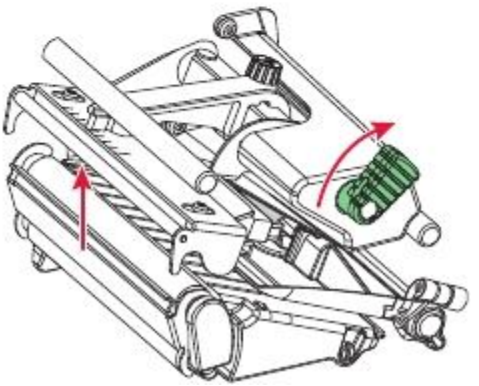
Note:Peel-offoperationsetshighdemandsonthemediain regardoflabelstiffness,releasecharacteristicsoftheadhesiveand liner,resistanceagainstelectrostaticchargingetc.,sothelabels willbedispensedproperly.Consultyourmediasupplierortest themediatoascertainthatitissuitableforyourapplication.

To perform the peel-off (self-strip) procedure

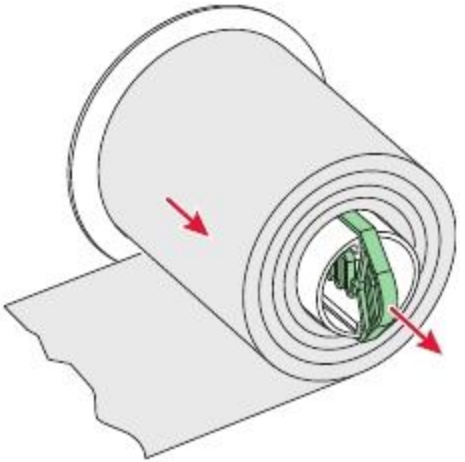
1Openthefrontandsidedoors.



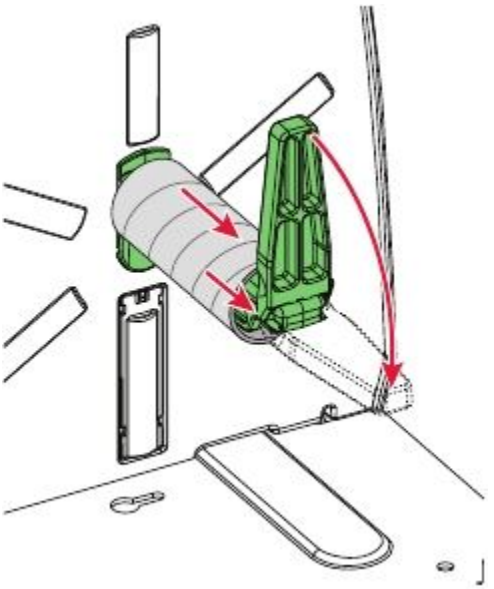
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



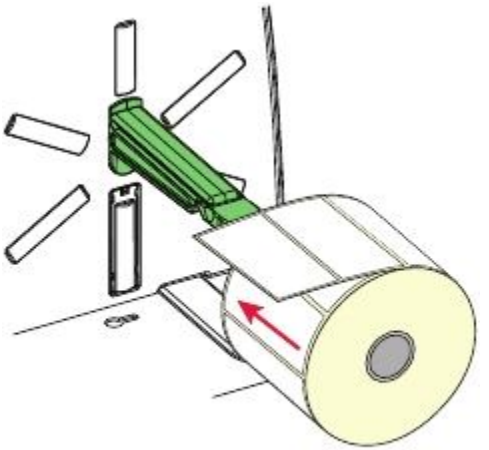
3Pullouttthehandletocollapsethetakeuphub,thenremove anyliner.



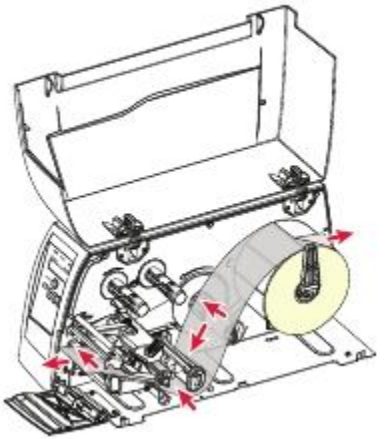
4Pullouttheedgeguideasfarasitgoesandfolditdowntoas farasitgoesandfolditdowntoahorizontalposition. Removeanyemptycorefromthemediasupplyrollpost.



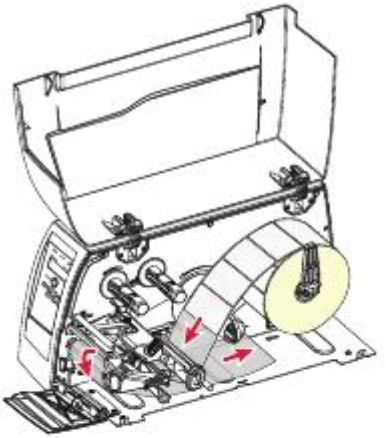
5 Fit a new roll of media on the supply post. Fold up and adjust the edge guides so the roll becomes flush with the center section.



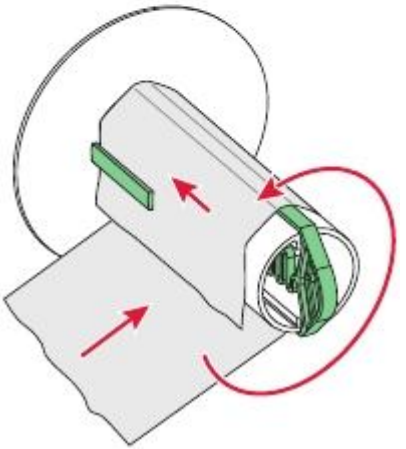
6 Remove labels from the first 50cm (20in) of the liner. Route the liner through the print mechanism and push it inwards towards the center section as far as it goes.



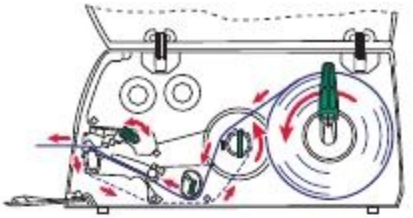
7 Route the liner around the tear bar and the liner driver roller and back under the print mechanism and guide shafts.



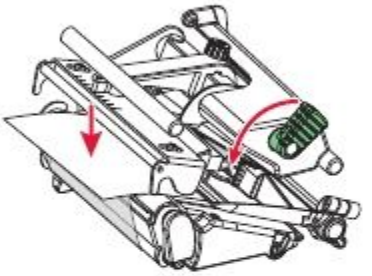
8 Insert the start of the liner under the lip of the take-up hub, then rotate the hub counterclockwise a few turns to wind up some of the liner.



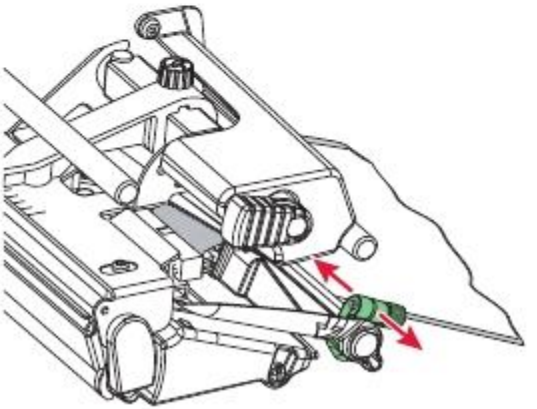
9 Thisdiagramshowsthemediaandlinerpaths.



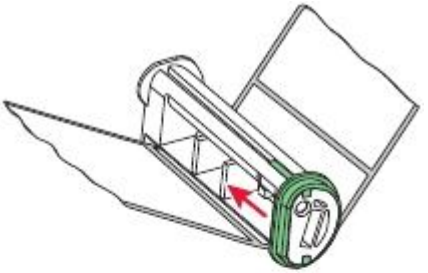
10 Turntheprintheadliftlevercounterclockwisetoengagethe printhead.



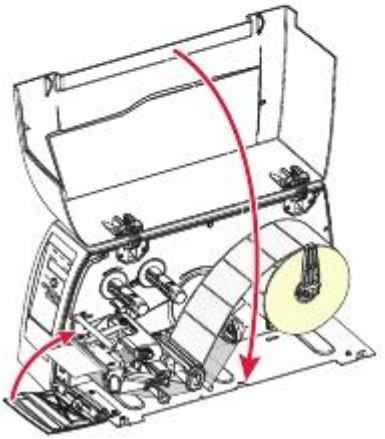
11 Adjustthepositionofthegreenedgeguidesothemediais guidedwithaminimumofplay. Lockwiththenut.



12Adjustthepositionoftheedgeguideonthelabelslack absorberaccordingtothewidthofthemedia.



13Closethefrontandsidedoors.



14 Press the **Feed/Pause** button to advance the media and adjust the media feed.

Cut-Off

The Easy Coder PM4i can print on labels, tickets, tags, and continuous stock in various forms. This section describes the case when the media is to be cut off by an automatic paper cutter (option).

Cut-off can be used for:

- Non-adhesive continuous stock
- Self-adhesive labels with liner (cut only liner between labels)

The cutter is designed to cut through paper-based media with a thickness between 60 and 175 µm, which roughly corresponds to a paper weight of 60 to 175 grams/m² (basis weight 40 to 120 lb). The cutter should not be used to cut through labels, because the adhesive will stick to the shears, which can damage the cutter.

The cutter is held by a latch inside the media compartment and can be tilted forward to facilitate media load. A switch prevents the cutter from operating when in open position.

The optional label taken sensor cannot be used with the cutter.

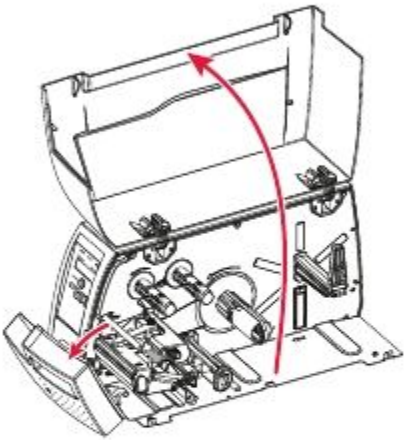
Thereisnofrontdoorwhenacutterisinstalled.

Thecuttercanbefittedwithanoptionaltrayforcollectingcut-offlabels.

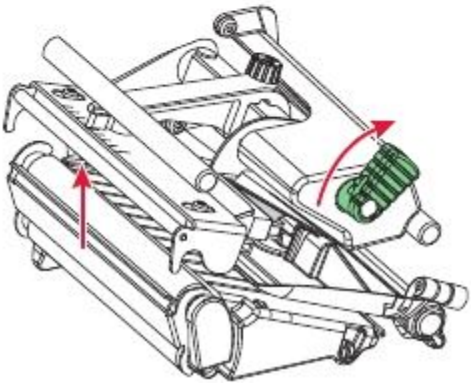
Note:Savethelabelindicatingthesensitivitynumberattachedto themediaroll.Youwillneedthisnumbertosetthemedia sensitivity,see “IntermecSupplies” onpage125.

To perform the cut-off procedure

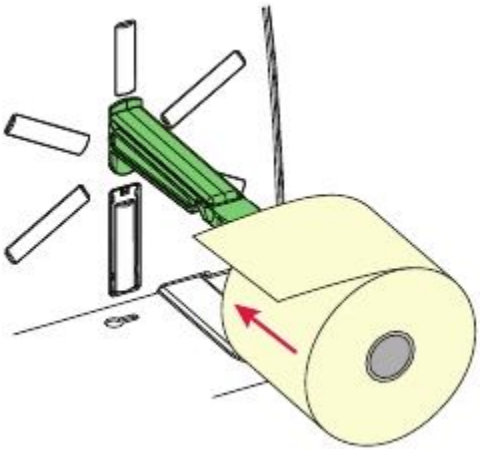
1Openthecutterandthesidedoor.



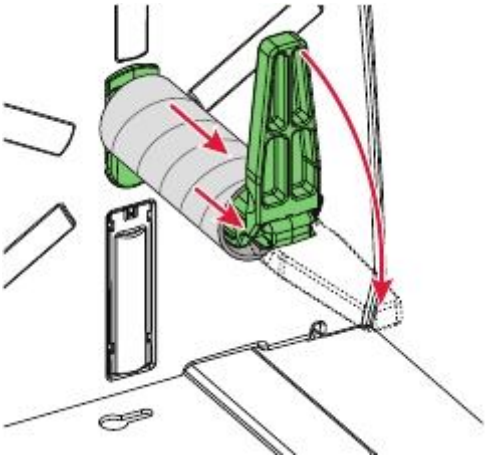
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



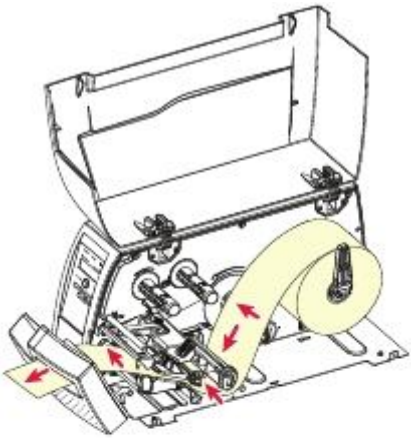
3 Pull out the edge guide as far as it goes and fold it down to a horizontal position. Remove any empty core from the media supply roll post.



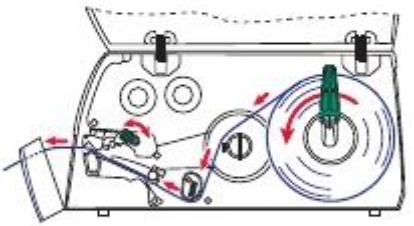
4 Fit a new roll of media on the supply post. Fold up and adjust the edge guides so the roll becomes flush with the center section.



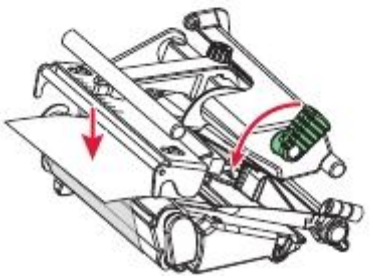
5Routethemediathroughtheprintmechanismandcutter.
Thenpushittowardsthecentersectionasfarasitwillgo.



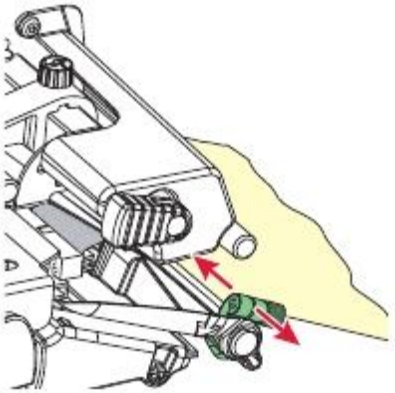
6Thisdiagramshowsthemediapath.



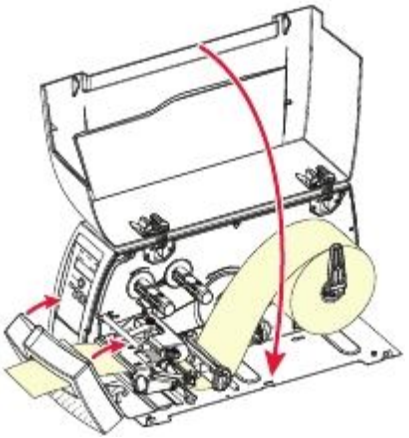
7Turntheprintheadliftlevercounterclockwisetoengagethe printhead.



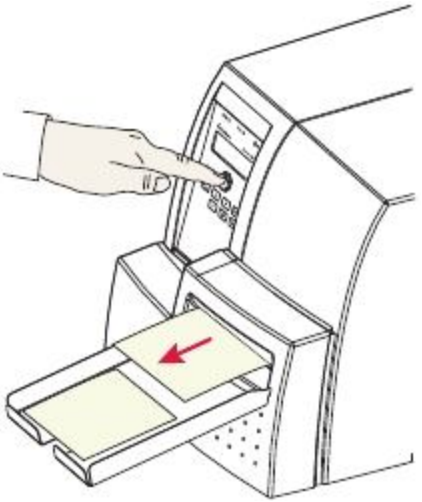
8Adjustthepositionofthegreenedgeguidesothemediais guidedwithaminimumofplay.Lockwiththenut.



9Closethesidedoorandthecutterwhilepullingthemedia tight.



10 Press the **Feed/Pause** button to advance the media and adjust the media feed. The labels can be collected on an optional tray.



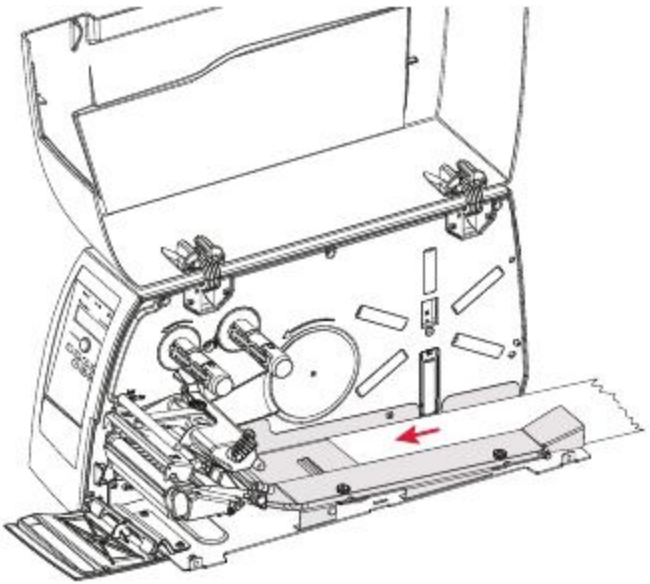
External Supply (Fanfold)

TheEasyCoderPM4icanprintonlabels,tickets,tags,and continuousstockinvariousforms.Thissectiondescribesthecase whenthemediasupplyisplacedbehindtheprinter,usuallyin theformoffanfoldedticketsortags.Externalsupplycanbeused withtear-off(straight-through)andcut-offprinting.

Althoughitispossibletosimplyfeedthemediathroughthehole intherearpartofthesidedooranddirectlytotheprint mechanism,westronglyrecommendusingaprinterfittedwitha specialfanfoldguideasillustratedbelow.Notonlydoesitmake medialoadingmucheasier,butitalsoguidesthemediawith greataccuracy.Thefanfoldguidecanbeadjustedforvarious mediawidthsdownto40mm(1.57in).

Whenusinganexternalmediasupply,takecaretoprotectthe mediafromdust,dirtorotherforeignparticles,thatcanimpair theprintoutqualityorcauseunnecessaryweartotheprinthead.

Dependingonbrandandquality,alldirectthermalmediaare moreorlesssensitivetoheat,directsunlight,moisture,oil, plasticizers,fat,andothersubstances.Protectthemedia accordingly.



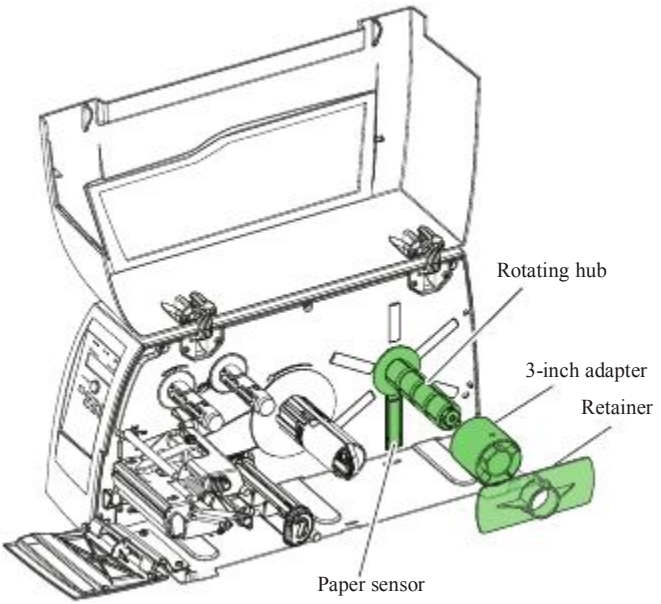
The media path when using a fanfold.

Rotating Media Supply

TheEasyCoderPM4ican,asanalternativetothestandardmedia supplyrollpost,useanoptionalrotatingmediasupplyhub, regardlessoftear-off,cut-off,orpeel-offoperation.

Therotatingmediasupplyhubcanbesupplementedbyan adapterformediarollswitha76mm(3in)core,amediaroll retainerwhichpreventsthemediarollfromuncoiling,anda paperlowsensor,thatcandetectwhentheremainingsupplyof mediareachesapredeterminedlevel.Alsoreferto “SettingUp thePrinter” onpage47and “Options” onpage67.

Medialoadingcorrespondstotheuseofamediasupplyrollpost, butthemediarollneedstobepressedsidewaysontothehub, makingsurethatitbecomesflushwiththediscattheinnerend ofthehub.



This illustration shows the various options used with the rotating media supply hub.

5 Thermal Transfer Printing

Thischapterexplainshowtoloadtheprinterwithribbonfor thermaltransferprinting.

Ribbon Load

TheEasyCoderPM4icanprintonlabels,tickets,tags,and continuousstockusingeitherdirectthermalprintingonspecial heat-sensitivemediaorthermaltransferprintingusingaspecial ink-coatedribbon.

Thermaltransferprintingmakesitpossibletouseawiderangeof receivingfacematerialsandgivesadurableprintoutless vulnerabletofat,chemicals,heat,sunlightetc.thandirect thermalprinting.Makesuretoselectatypeofribbonthat matchesthetypeofreceivingfacematerialandtosetupthe printeraccordingly.

TheEasyCoderPM4icanusetransferribbonrollswoundwith theink-coatedsidefacingeitheroutwardorinward.Illustrations inthismanualshowtheink-coatedsidefacinginward.

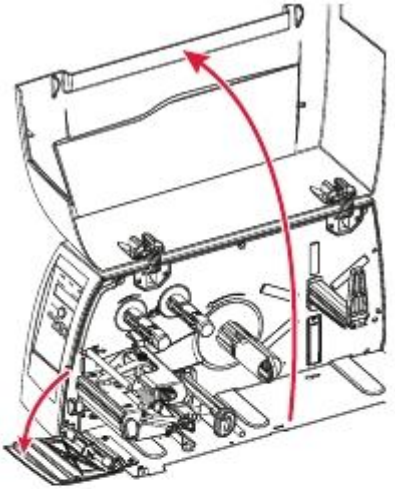
Evenifribbonusuallyisloadedinconnectionwithmedia replenishment,noloadedmediaareshownintheillustrationsin thischapterinordertogiveaclearerviewoftheribbonpath. Referto “MediaLoad” onpage17.

Mosttransferribbonsdonotsmearatroomtemperature.

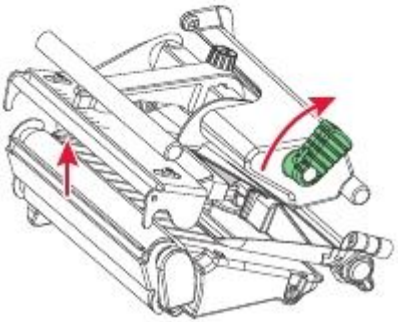
- **Note:** Savethelabelindicatingthesensitivitynumberattachedto theribbonroll.Youwillneedthisnumbertosetthemedia sensitivity,see “IntermecSupplies” onpage125.

To perform the ribbon load procedure

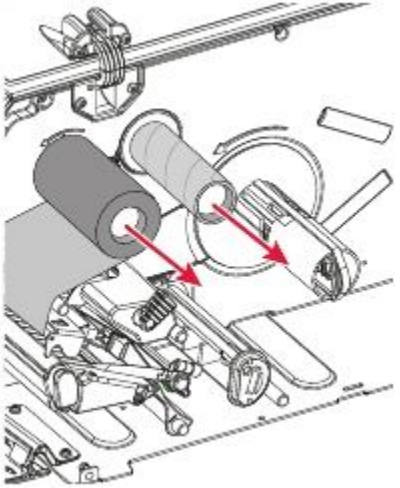
1Openthefrontandsidedoors.



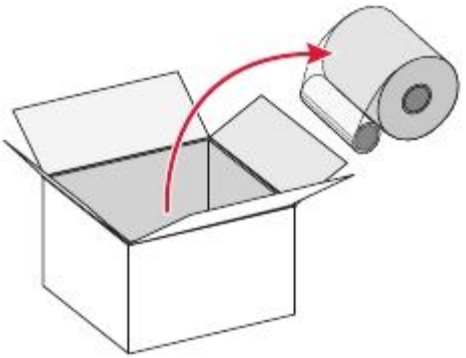
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



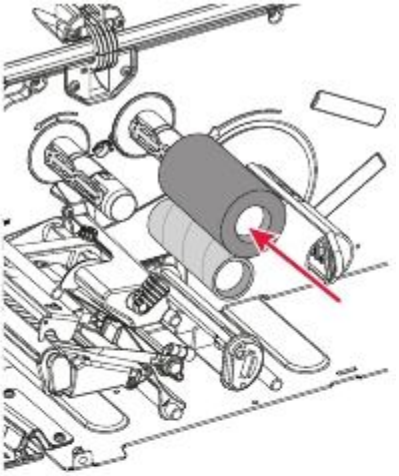
3 In case of ribbon reload, remove any used ribbon and empty ribbon core.



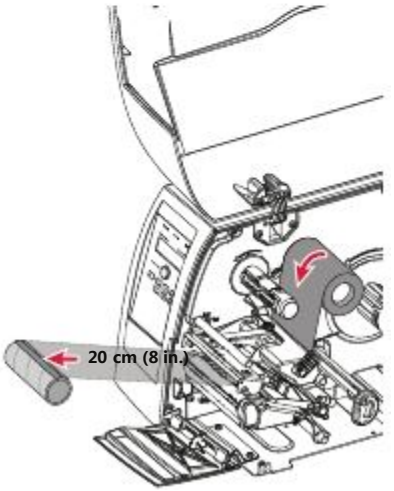
4 Unpack a roll of original Intermec thermal transfer ribbon.



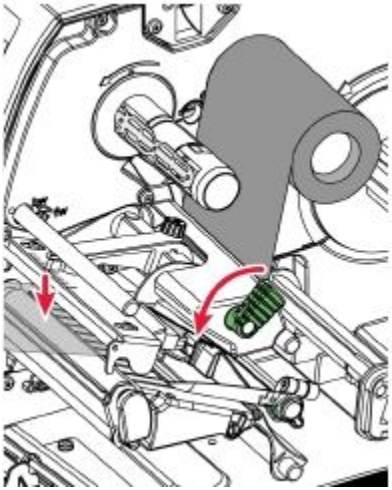
5 Slide the ribbon roll onto the supply hub so the ink-coated side faces down when the ribbon is routed through the print mechanism.



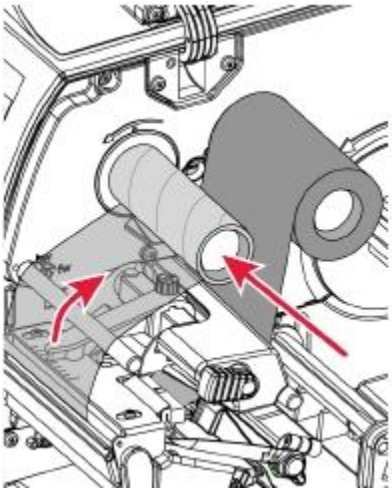
6 Route the ribbon through the print mechanism above the transparent upper LSS guide and pull out approximately 20 cm (8 in) of ribbon leader.



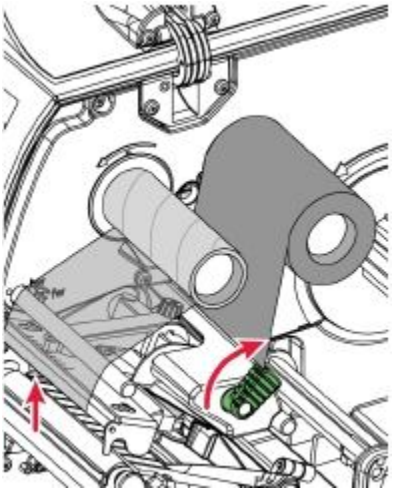
7 Without releasing the ribbon, turn the printhead lift lever counterclockwise to engage the printhead and lock the ribbon.



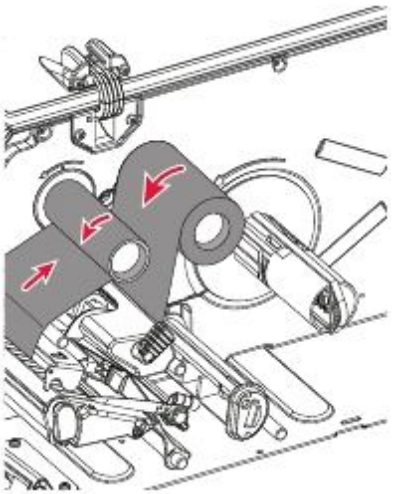
8 Slide the empty cardboard core onto the ribbon rewind hub so the ribbon is wound up when the hub rotates counterclockwise.



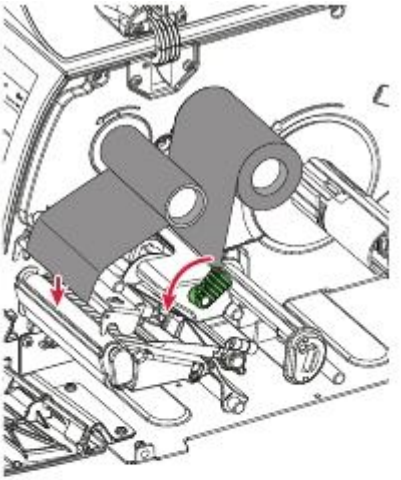
9 Turn the printhead lift lever clockwise to raise the printhead and release the ribbon.



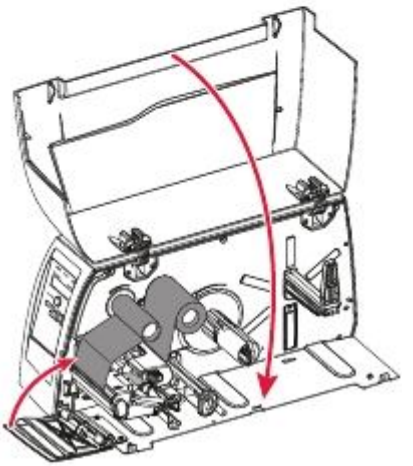
10 Manually advance the ribbon until all of the transparent leader has passed the printhead and the ribbon becomes tight.



11 Turn the printhead lift knob counterclockwise to engage the printhead.



12 Close the front and side doors.



6 Setting Up the Printer

This chapter describes the various parameters that are used in the "SetupMode" on page 59 or in the various application programs to configure the printer for the user's specific requirements. It covers the following topics:

- Description
- Default setup
- Setup Parameters in regard of communication, test/service, media, and configuration.

Description

Thesetupcontrolstheprinterinregardofserialcommunication, testandserviceoperations, andspecifieswhichtypesofmedia andribbonareloadedintheprinter.

Checkthelistbelowtoseeiftheprinter' sdefaultsetupmatches yourrequirements. Ifnot, youwillhavetochangethesetup. To entertheSetupMode, presstheSetupkeyontheprinter' sbuilt-inkeyboardandfollowtheinstructionsin "SetupMode" on page59.

Default Setup

Theprinter' sdefaultsetupislistedbelow(nooptionsincluded):

Ser-Com
Baudrate
Databits
Parity
Stopbits
Protocol
Test/Service
Testprint
Datadump
Memoryreset
Media
Mediatype
Papertype
Labellength
Sensitivity
Darkness
Labelrestpoint
FormadjdotsX
FormadjdotsY
Lowdiameter(ribbon)

Configuration
Emulation
Printspeed
Cutter
Labeltakensensor

Setup Parameters

Serial Communication

Theserialcommunicationparameterscontrolthe communicationbetweentheprinterandtheconnectedcomputer orotherdevicesontheserialport.

Note:Theserialcommunicationparametershavenoeffecton parallelorEasyLANcommunications.

Makesuretheprinter’scommunicationparametersmatchthe setupoftheconnecteddeviceorviceversa.Ifthesetupofthe printerandthesetupofthehostdonotmatch,theresponsefrom theprintertohostwillbegarbled.

Baud Rate

Thebaudrateisthetransmissionspeedinbitspersecond.There areeightoptions:

- 1200
- 2400
- 4800
- 9600(default)
- 19200
- 38400
- 57600
- 115200

Character Length

Thecharacterlengthspecifiesthenumberofbitsthatwilldefine acharacter.

- 7
- 8

Parity

Theparitydecideshowthefirmwarewillcheckfortransmission errors.Therearefouroptions:

- None(default)
- Even
- Odd
- Space

Stop Bits

Thenumberofstopbitsspecifieshowmanybitswilldefinethe endofacharacter.Therearetwooptions:

- 1(default)
- 2

Protocol

XON/XOFF (default)

IntheXON/XOFFprotocol,dataflowcontrolisachievedby usingXON(DC1)andXOFF(DC3)characters.Messageblocks arenotrequiredtobebracketedbytheStartofText(STX)and EndofText(ETX)characters.However,atpoweruporaftera resetallcharactersexceptENQorVTwillbeignoreduntilan STXisdetected.Themessagelengthinthisprotocolis unrestricted.Thatis,theprinterprocessesinformationasitis beingdownloadedandstopswhenthereisnomoreinformation.

XON/XOFFprotocolconformstogenerallyacceptedindustry standards.Noend-of-messageresponseissenttothehostother thanXOFF.AnXONwillbesentonpowerup.

SinceDC1andDC3areusedfordataflowcontrol,theprinter statuscharactersaredifferentthanthoseoftheStandard Protocol.Ifthehostignorestheprinter’sXOFF,theprinterwill resendanXOFFafterreceivingevery15charactersfromthehost.

Version)

Condition
Bufferalreadyfull
Printheadraised
Ribbonfault
Nolabelstock
Buffernowfull
Printheadhot
Labelatstrippin
Labelskipping
Printing

Intermec Standard Protocol

TheIntermecPrinterStandardProtocolisahalf-duplexprotocol. Alldatatransmissionstotheprinterconsistofstatusinquiry (ENQ), statusdump(VT), ormessageblocks. Eachmessage blockstartswiththeStartofText(STX)characterandendswith theEndofText(ETX)character. Eachmessageblockmustbe 255charactersorless, includingtheSTXandETXcharacters. Theprinterrespondstoeachstatusinquiryormessageblock withtheprinterstatus. Thehostshouldchecktheprinterstatus beforedownloadingamessageblocktotheprinter. ENQcauses theprintertotransmititshighestpriioritystatus, whileVT instructstheprintertotransmitallstatusthatappliesintheorder oftheirpriority. Thepossibleprinterstatusindescending prioritiesare:

Condition
Bufferalreadyfull
Printheadraised
Ribbonfault
Nolabelstock
Buffernowfull
Printheadhot
Labelatstrippin
Labelskipping

Condition
Ready
Printing

Test/Service

Testprint

ThispartoftheSetupModeallowsyoutoprintvarioustypesof testlabels.Gotothedesiredoptionandpress**Enter**.Theprinter willstartprintingthetestlabelorlabels.Press**Feed/Pause** buttontoholdtheprintingtemporarily.Toresumeprinting, press**Feed/Pause**buttonagain.Thefollowingoptionsare available:

Configuration

Selectbetweensoftware(SW),hardware(HW),andnetwork.

TheSoftwareConfigurationLabelcontains:

- Currentconfigurationparametersstoredintheprinter’s memory
- Definedpages
- Definedformats
- Definedgraphics
- Definedfonts
- Anyinstalledprinteroptions

TheHardwareConfigurationLabelcontains:

- Printermemoryinformation
- Printermileage
- Printheadsettings
- Firmwarechecksum,program,andversionnumber

TheNetworkConfigurationLabelcontains:

- WINSName
- MACAddress
- IPSelection

- IPAddress
- Netmask
- DefaultRouter
- NameServer
- MailServer
- PrimaryWINSServer
- SecondaryWINSServer
- NetworkStatistics

Test Labels

Thisoptionhastwochoices,PitchandPrintQuality.

- ThePitchlabelcontainsanevenpatternofsmalldotsthat revealsfailingprintheaddotsandvariationsofprintout darknessbecauseofunevenprintheadpressureorbadenergy regulationtotheprinthead.
- ThePrintQualitylabelcontainsnumberofbarcodeswith differentcharacteristicsandusefulinformationonprinter model,programversion,printspeed,andmediasensitivity setup.

Format

TheFormatLabelcontainsasingleformatthatyoucanuseto evaluatetheprintqualityofaparticularformat.Thisoption printslabelsforalltheformatsstoredintheprinter’smemory.

Page

ThePageLabelteststheabilityoftheprintertoreceiveandprint singleormultiplepagesoflabeldatathatissentfromthehost. Thisoptionprintslabelsforallthepagesstoredintheprinter’s memory.

UDC

TheUDCLabelteststheabilityoftheprintertoreceiveand printsingleormultipleuser-definedcharacters(bitmapgraphics) thataresentfromthehost.Thisoptionprintslabelsforallthe UDCsstoredintheprinter’smemory.

Font

TheFontLabelcontainsallthecharactersinasinglefont.This optionprintslabelsforalltheuser-definedfonts(UDF)storedin theprinter’smemory.

Data Dump

Ifdatadumpisenabledbyselectingthe “Yes” option,theprinter printsalldataandprotocolcharactersreceivedontheserialport. AnASCIIandhexadecimalrepresentationofeachcharacteris printed.

Memory Reset

Therearetwooptions.Thememorywillberesettofactory defaultassoonasanoptionhasbeenselectedand<Enter>is pressed.Selectbetween “All”,whichresetstheentirememoryand “Configuration” whichjustresetstheconfigurationpartofthe memory.

LSS Test

Referto “Adjustments” onpage95foradescription.

Media

Themediaparameterstellthefirmwarethecharacteristicsofthe mediathatwillbeused,sotheprintoutwillbepositioned correctlyandgetthebestqualitypossible.

Media Type

TheMediaTypeparameterscontrolhowthelabelstopsensor (LSS)andthemediafeedwork.Therearethreemediatype options:

- Gapisusedforadhesivelabelsmountedonliner(backing paper)orcontinuouspaperstockwithdetectionslots. Default.
- Markisusedforlabels,tickets,orstripprovidedwithblack marksattheback.
- Continuousisusedforcontinuousstockwithoutany detectionslotsorblackmarks.

Paper Type

ThePaperTypeparameterscontrolhowthetransferribbon mechanismandtheribbonsensorwork.Therearetwopaper typeoptions:

- DT(DirectThermal)isusedforheat-sensitivemediawithout anyneedforathermaltransferribbon.Default.

TTR(ThermalTransfer)isusedfornonheat-sensitivereceiving facematerialsincombinationwithathermaltransferribbon.

Label Length Dots

TheLabelLengthsetupspecifiesthelengthindotsofeachcopy alongthemediafeeddirection(X-coordinate).Thisisusedfor “label-out” detection.

Sensitivity

Thissetupparameterspecifiesthecharacteristicsofthedirect thermalmediaorcombinationofreceivingfacematerialand thermaltransferribbon,sotheprinter’sfirmwarecanoptimize theheatingoftheprintheadandtheprintspeed.Standard suppliesfromIntermecarelabeledwitha3-digitmedia sensitivitynumber(see “IntermecSupplies” onpage125),which isusedtospecifythemediagrade.Themediasensitivitynumber canalsobechangedusingPrintSet,third-partysoftware,oran IPLcommand(<SI>gn[,m]).Defaultis420fordirectthermal printingand567forthermaltransferprinting.

Darkness

Usethisparametertomakeminoradjustmentsoftheblackness intheprintout,forexampletoadapttheprintertovariationsin qualitybetweendifferentbatchesofthesamemediaquality.The valuecanbesetwithintherange-10%to+10%where-10isthe lightestand10isthedarkest.Defaultvalueis0%.

Label Rest Point

Specifieswherelabelsstopforremoval.Usethisforpeel-off(self-strip)applications.Allowedrangeis-30(furthestback)to30 (furthestforward).Defaultis0.AlsoavailableasanIPL command(<SI>fn).

Form Adj Dots X

SpecifieswheretheX-positionoftheoriginshouldbeplacedon thelabel.Allowedrangeis-30(closesttotheleadingedge)to30 (furthestfromtheleadingedge).Defaultis0.

Form Adj Dots Y

SpecifieswheretheY-positionoftheoriginshouldbeplacedon thelabel.Allowedrangeis-30(closesttothecentersection)to30 (furthestfromthecentersection).Defaultis0.

Ribbon Low

Specifiesthevalueinmillimetersoftheribbonsupplyrollforthe ribbonsensor.Whenthediameterofremainingribbonsupply rollreachesthesetvalue,anSNMPtrapissenttotheprinter's homepage,providedtheprinterhasanoptionalEasyLAN connection.Range:0-80withpresetvaluesatanintervalof5.A valuelargerthan80setstheribbonsensorto0.Defaultvalue:0.

TheribbonlowsensorcanalsobesetusinganIPLcommand:

<STX><SI>kn<ETX>

Paper Low (option)

Specifiesthediameterinmillimetersofthemediasupplyrollfor thepapersensor.Whenthediameterofremainingmediasupply reachesthesetvalue,anSNMPtrapissenttotheprinter's home page,providedtheprinterhasanoptionalEasyLANconnection. Range:0-150withpresetvaluesatanintervalof10.Avalue largerthan150setsthepapersensorto0.Defaultvalue:0.

TheribbonlowsensorcanalsobesetusinganIPLcommand:

<STX><SI>jn<ETX>

Configuration

Emulation

Emulationmodeletsyouprintbarcodelabelsthatwere originallydesignedonan86XXprinterinmultiplesof10or15 mil.Whentheprinterisworkinginemulationmode,notallIPL commandsaresupported.Foracompletelistofcommands availableduringemulation mode, see the latest version of the *IPL Command, Reference Manual*(P/N937-007-XXX).

Toreturnfromemulationmode,selectemulation "none" (default).

Print Speed

Youcanselecttheprintspeedfrom100mm/sec.(4in./sec.)to 200mm/sec.(8in./sec.)withanintervalof1in./sec.Thehigher theprintspeed,themorewearontheprinthead,sodonotusea higherprintspeedthannecessary.Somedirectthermalmediaor ribbon/mediacombinationsmaynotallowthehighest alternativeswithouttheprintoutqualitybeingadverselyaffected.

Cutter (option)

Bydefault, “NotInstalled” isdisplayed. Ifacutterisinstalled, youmustmanuallyindicatethatconditiontothefirmwareby selectingeither “Enable” or “Disable.” Onceyouhavedonethat, youcanalsouseIPLcommandstoenableordisablethecutter:

```
<STX>R<ETX>
<STX>SIc0<ETX>
<STX>SIc1<ETX>
```

Label Taken Sensor (option)

Tomaketheprinterworkinself-stripmode, thatis, waitingfora labeltoberemovedbeforethenextlabelisprinted, theself-strip modemustbeenabled. Thiscanalsobedonebyexecutingthe followingcommands:

```
<STX>R<ETX>
<STX>SIt0<ETX>
<STX>SIt1<ETX>
```

Ifthelabeltakensensordoesnotworkproperly, thesensitivity canbecalibratedintheSetupMode. Select “LTSCalibration” andfollowtheinstructionsinthedisplay. Makesurethatno directsunlightorinteriorlightinginterfereswiththelabeltaken sensor.

Returning to Factory Default Setup

Therearetwowaystoreturntothefactorydefaultsetupofthe printer:

AInsertaspecialCompactFlashmemorycardandrestartthe printer.

BUsingtheprinter’sbuilt-inkeyboard.

To reset the printer using the keyboard:

1. Lifttheprinthead.
2. Switchonthepowertotheprinterandpresstheikeyand waituntiltheprinterbeeps.
3. Swiftlypressthefollowingkeys:

   /Esc
4. Thefollowingmessagewillbedisplayed:

   FactoryDefault?

   Enter=YesESC=No
5. Within10seconds,pressEntertoresettheprintertofactory default.Theparameterswillberesetandtheprinterwill continuethenormalstartup.

   Ifyoupress
   passed,thenormalstartupwillcontinuewithoutanyreset beingperformed.

Note:Thefactorydefaultwillremoveallfilesusedtostore settings.Itwillnotresetsettingsthatalreadyhasbeenreadwhen thefilesareremoved.ThismeansthatEasyLANWirelesssettings (SSID,keys,etc.)willretaintheirvaluesfromthepreviousstart. However,thenextrebootwillresetthemtofactorydefault.

7 Setup Mode

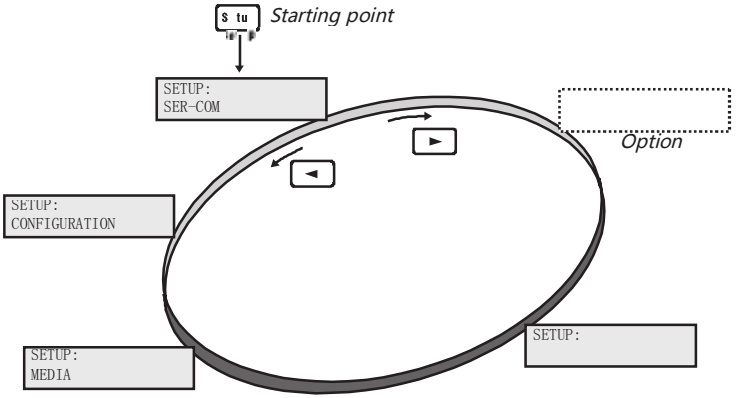
Thischapterdescribeshowtonavigateinthesetupmode,and providesoverviewsoftheSetupMode.

Navigating in Setup Mode

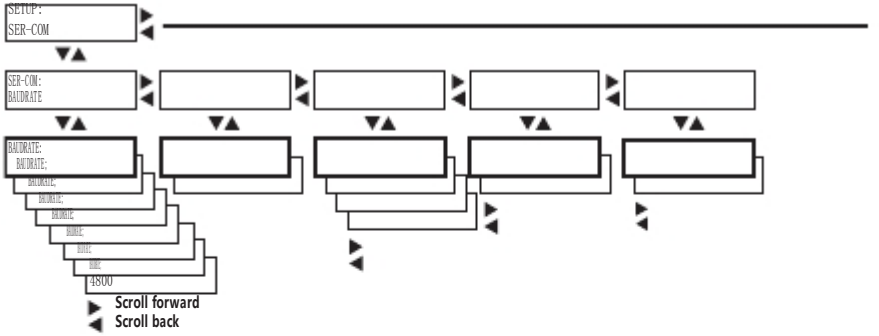
EntertheSetupModebypressingtheSetupkeyontheprinter’s frontpanel.Whilegoingthroughthesetupprocedure,youare guidedbytextsintheprinter’sdisplay.Youcannavigatebetween setupmenus,acknowledgedisplayedvalues,selectorenternew values,etc.byusingthekeysontheprinter’skeyboard.

TheSetupModeisorganizedasanendlessloop,fromwhichyou canselectanumberofsub-categories.Atstartup,thefirmware determinesifoptionssuchasalabeltakensensor,acutter,oran interfaceboardisinstalledintheprinter.Onlyinstalledoptions areshownintheSetupMode.

Thediagrambelowshowstheoptionsinthemainloop.Detailed overviewsareshownonthepagesthatfollow.



Setup Mode; Serial Communication
(IPL v2.30)



Legend:

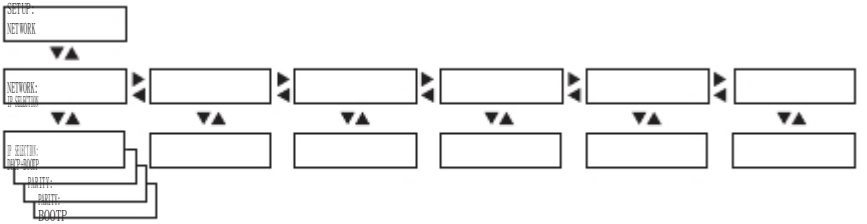
Dottedboxesandlinesindicateoptions.

Thickboxesindicatesdefaultoptions.

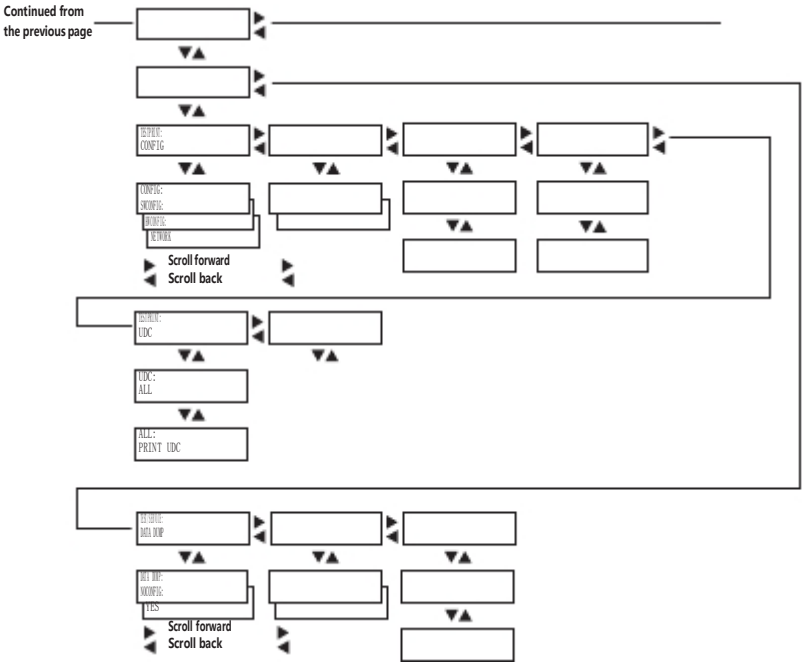
Valuesinsidebracketsindicatedefaultsettings.

Setup Mode; Network (Option)

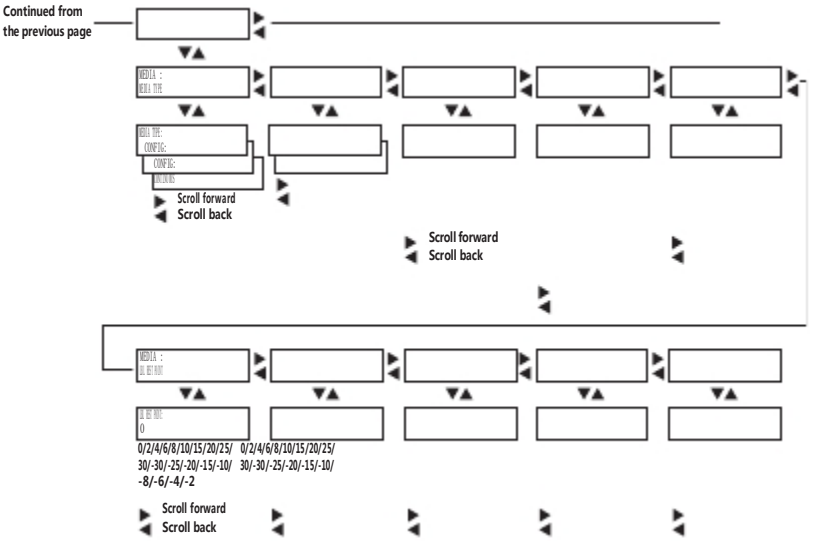
(IPL v2.30)



Setup Mode; Test/Service
(IPL v2.30)



Setup Mode; Media
(IPL v2.30)

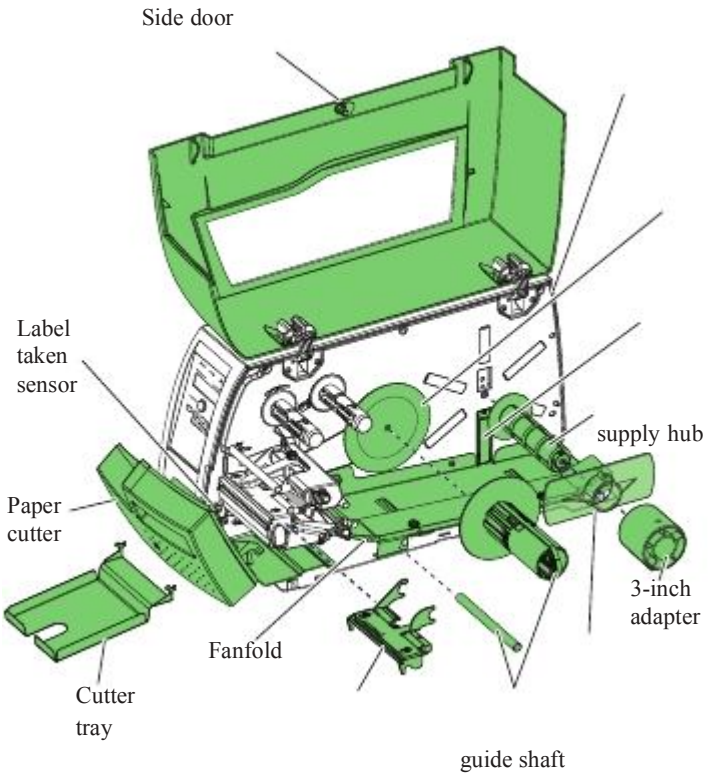


8 Options

Thischapterdescribestheoptionsavailablefortheasy Coder PM4iprinter.Theoptionscanbefactoryinstalled,field-installed byanauthorizedservicetechnician,orinsomecasesinstalledby theoperator.

Introduction

TheEasyCoderPM4iprovidesahighdegreeofflexibility becauseithasamodulardesign.Byaddingoptionstothebasic printer,theEasyCoderPM4icanbeadaptedforavarietyof applications.Mostoptionsshouldbeinstalledbyanauthorized servicetechnicianorareonlyavailableasfactory-installed options.



Integral Liner Takeup Unit

The integral liner takeup unit is an optional device for peel-off (self-strip) operation, which means that the labels are separated from a liner (backing paper) after printing and the liner is wound upon an internal hub. The unit also includes a guide shaft. Peel-off cannot be combined with an internal fan fold guide. For more information, see Chapter 4, “Media Load.”

Paper Cutter

The paper cutter is designed to cut off continuous paper-based stock or liner between labels. The cut-off labels, tickets, or tags can be collected on an optional tray. For more information, see Chapter 4, “Media Load.”

Media Supply Hub

The rotating media supply hub is designed to fit media roll cores with an internal diameter of 38-40 mm (1.5 in).

Paper Sensor

The paper sensor is fitted inside a plastic cover in the center section below the media supply hub. It can only be used with a rotating media supply hub and detects when the remaining media supply has reached a preset minimum diameter, as specified in the Setup Mode.

Media Roll Retainer

The retainer is intended to keep large media rolls in place when using a rotating media supply hub. It restricts the maximum media width to 100 mm (3.9 in). Installed by the operator.

76 mm (3-in) Adapter

The 76 mm (3-in) adapter is used with a rotating media supply hub and makes it possible to use media rolls with 76 mm (3-in) inner diameter cores. The adapter is pressed onto the hub and secured by a screw. Not used with a media supply roll post. Installed by the operator.

Label Taken Sensor

TheLabelTakenSensor(LTS)isaphotoelectricsensorthat enablestheprinter’sfirmwaretodetectifthelatestprintedlabel, ticket,tag,etc.hasbeenremovedbeforeprintinganothercopy. TheLTScannotbeusedinconnectionwithapapercutter.

Internal Fanfold Guide

Thisguidefacilitatesmedialoadfromanexternalsupplytothe rearoftheprinterandprovidessuperiorguidingofthemedia.It cannotbeusedinconnectionwithpeel-off(self-strip)operation andcannotbecombinedwithalabelslackabsorber,whichmay restrictthemaximumprintspeedsomewhat.

Side Door with Keylock

Ifthemediaisvaluableorsensitive,suchastickets,youcan installasidedoorthatcanbelockedwithakey.Canbeinstalled bytheoperator.

Thick Media Printhead

Asstandard,theprinterisfittedwithan8dots/mm(203.2dots/ in)thermalprinthead.Thereisalsoanoptionalprintheadfor 170-220μm(6.6-8.7mils)mediathickness.Theprintheadcan easilybereplacedorexchangedbytheoperatorasdescribedin Chapter11.

Interface Boards

Anumberofinterfaceboardsareavailableforusewiththe EasyCoderPM4iprinter.Theinterfaceboardsareeitherfactory-fittedorcaneasilybefittedbyanauthorizedservicetechnician.

TheEasyCoderPM4icanaccommodateoneEasyLANinterface boardplusoneIEEE1284ParallelInterfaceBoard.

EasyLANboards:

- EasyLANEthernetInterface
- EasyLANWirelessInterface

9 Troubleshooting

ThischapterdescribeshowtheIntermecReady-to-Work Indicatorswork.Italsolistsvariouspossiblecasesofinferior printoutquality,describespossiblecauses,andsuggestsremedies.

Intermec Ready-to-Work Indicator

Thereadinessoftheprinter,individuallyorasapartofa solution,isindicatedbytheblueIntermecReady-to-Work Indicator(IRI).

IftheIRIblinksorisswitchedoff,theprinterisnotready. Furtherinformationcanbeobtainedinthedisplaywindowby pressingtheikey.Incaseofseveralerrorsorsimilarconditions occurringsimultaneously,onlythemostsignificanterroris displayed.Oncethiserrorhasbeencleared,nextremainingerror isdisplayed.

Providedtheprinterisconnectedtoanetwork,allconditions thatpreventsprintingarereportedtotheEasyADCConsole. TheEasyADCConsoleisaPC-basedsoftwarewhichallowsa supervisortomonitorallconnecteddevicesthathavean IntermecReady-to-Work,includinghandheldcomputers,access points,andprinters.

Display Messages and LED Indications

Error Error/Event	
Operational	
Outofpaper	
OutoftransferBlink ribbon	
TransferribbonBlink isinstalled	
Headlifted	
Cuttererror1	Cutter
Cuttererror2	Cutter
Cuttererror3	Cutter
Lsstoohigh	
Lsstoolow	

Display Messages and LED Indications (continued)

Error Error/Event
Testfeednot done
Pressfeednot done
Pausemode entered
Setupmode entered
IPlinkerror
IP configuration error
Printheadnot found
Rebooted
Initializing
Printercrash
Printerturned off
Maintenance
Powersupply Over temperature
PrintheadHotOff

Symptoms and Possible Causes

Symptom	
Overallweak printout	
	pressuretoolow
	WornprintheadReplace printhead
	WrongprintheadReplaceCPU voltage
Printoutweaker ononeside	
	pressure
Weakspots	
	Media/ribbon don’tmatch
	Poormediaor ribbonquality
	WornprintheadReplace printhead
	Wornplaten roller
	Contrastvalue toolow
Overalldark printout	
	pressuretoohigh
	WrongprintheadReplaceCPU voltage

Symptoms and Possible Causes (continued)

Symptom		
Excessivebleeding	Wrongmedia grade	
	Contrastvalue toohigh	
	Printhead pressuretoohigh	
	Faultyenergy control	
Darklinesalong mediapath		
Whitevertical lines		
Largepartofdotline missing	FailingprintheadReplace	
	Failingstrobe signal	
Printoutmissing alonginneredge		
	upperpos.	
	X-startparameterIncrease valuetoolow	
Transferribbon breaks		
	Wrongmedia grade	

Symptoms and Possible Causes (continued)

Symptom	
	Badenergy control
Transferribbon wrinkles	adjustment
	Incorrectedge guideadjustment
	Toostrong printhead pressure
Nothermal transferprintout	media
Mediafeednot workingproperlycharacteristics	
	WronglabelrestCheck/change dotsparameter
	WrongMedia Typeparameter
	WrongLSS position
	Dirtysensors
	Faultysensors
Compressedtext orbarcode	largemediaroll

Note1:Thisisonlyapplicableforprintersequippedwithan EasyLANinterface.

Note2:AprinterthatisequippedwithanEasyLANinterface, butisnotconnectedtoanetwork,willhaveablinkingIRI.To avoidthis,theusercanset “IPSELECTION” to “MANUAL” and “IPADDRESS” to “0.0.0.0”.Thiswillindicatethattheuser doesnotregardthelackofnetworkconnectionasanerror.

Note3:Notrapcanbesentwhenthiserror/eventoccurs.

Note4: This error indicates that the printer has not received an IP address. It is only applicable for printers with IP SELECTION set to DHCP and/or BOOTP.

Note5: At most, but not all, printer crashes, the console is reset. This will make the IRI go off.

Note6: If the printhead temperature raises above 100° C (212° F), an error occurs and the printing will be paused until the printhead has cooled off. Meanwhile, the printer is able to receive commands and data until the buffer is filled. The printing is automatically resumed when the printhead temperature has reached 85° C (185° F).

10 Maintenance

Thischapterdescribeshowtheoperatorcanmaintaintheprinter. Regularmaintenanceisimportantfortheprintoutqualityand forthelifeoftheprinthead.Thechaptercoversthefollowing topics:

- Printheadcleaning
- Externalcleaning
- Cleaningthemediaguides
- Printheadreplacement
- Mediajams

Whencleaningorreplacingtheprinthead,takeample precautionstoavoidelectrostaticdischarges.

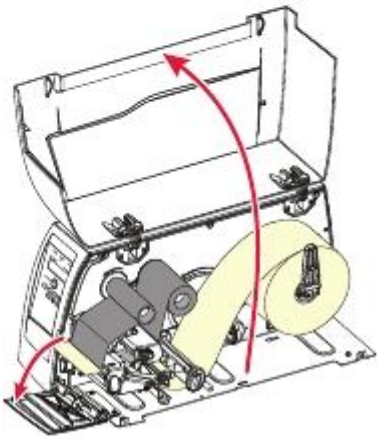
Printhead Cleaning

Cleaningtheprintheadonaregularbasisisimportantforthelife oftheprintheadandfortheprintoutquality.Youshouldclean theprintheadeachtimeyoureplacethemedia.Thissection describeshowtocleantheprintheadusingcleaningcards.If additionalcleaningisrequired,forexampleremovingadhesive residuefromtheplatenrollerortearbar,useacottonswab moistenedwithisopropylalcohol.

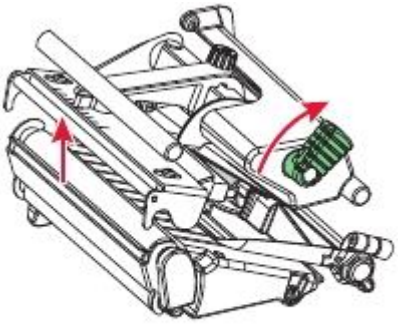
Isopropylalcohol[$(CH_3)_2CHOH$;CAS67-63-0]isahighly flammable,moderatelytoxic,andmildlyirritatingsubstance.

To clean the printhead

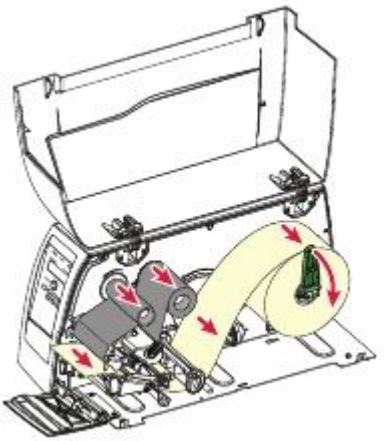
1Openthefrontandsidedoors.



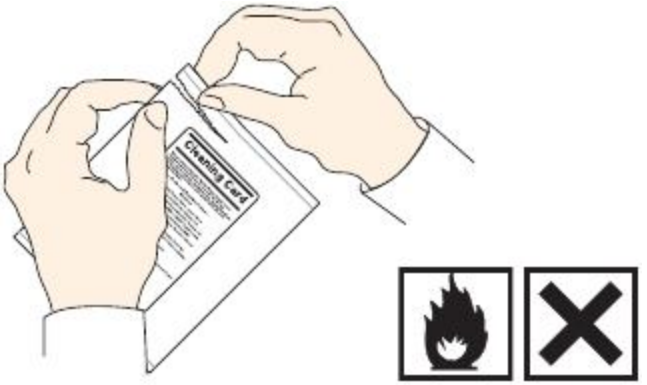
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



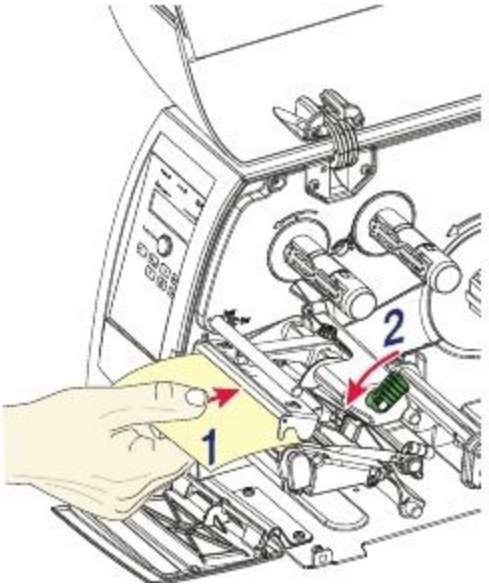
3Removeanymediaandtransferribbon.



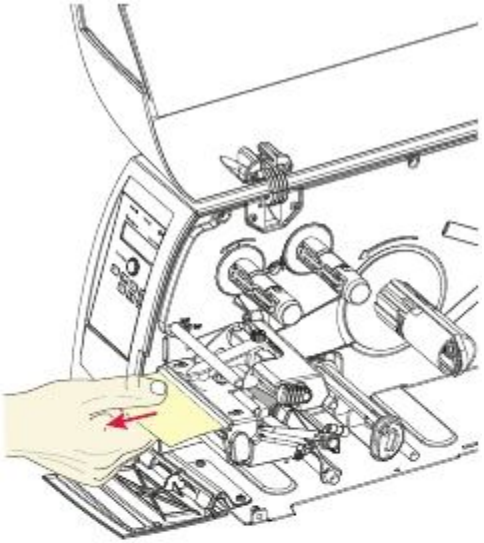
4 Open the cleaning card envelope and pull out the cleaning card. Read the warning text.



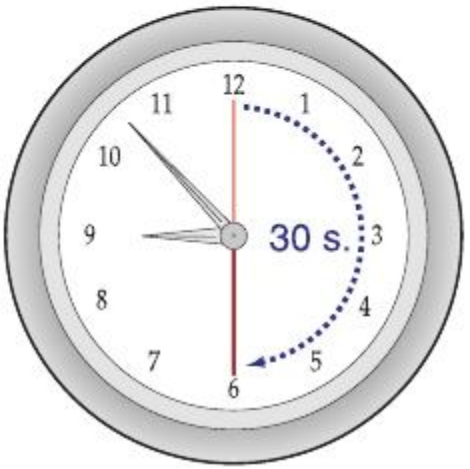
5 Insert most of the cleaning card under the printhead (1). Engage the printhead (2).



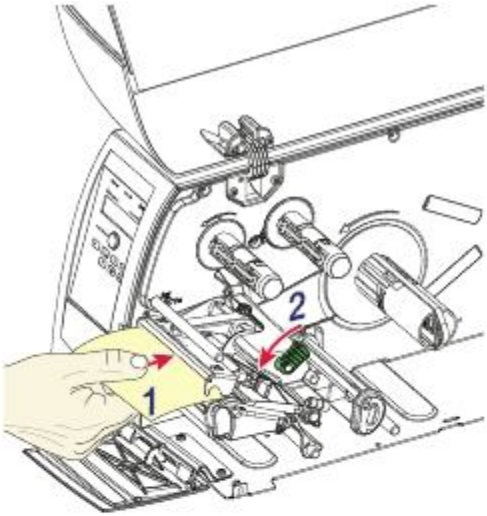
6Pullouttthecleaningcard(1)andraisetheprinthead(2).



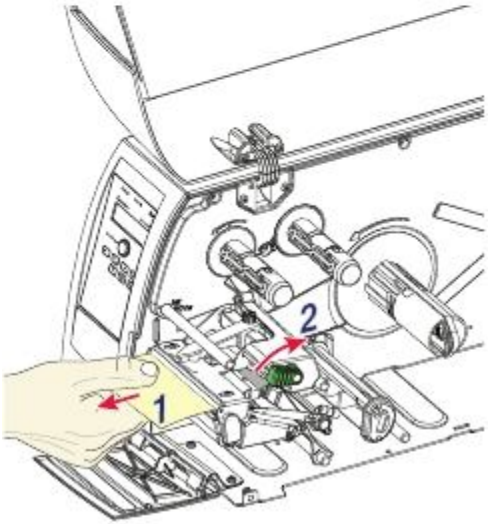
7Waitforapproximately30secondstoallowthecleaningfluid todissolvetheresidue.



8Insertmostofthecleaningcardundertheprintheadagain (1).Engagetheprinthead(2).



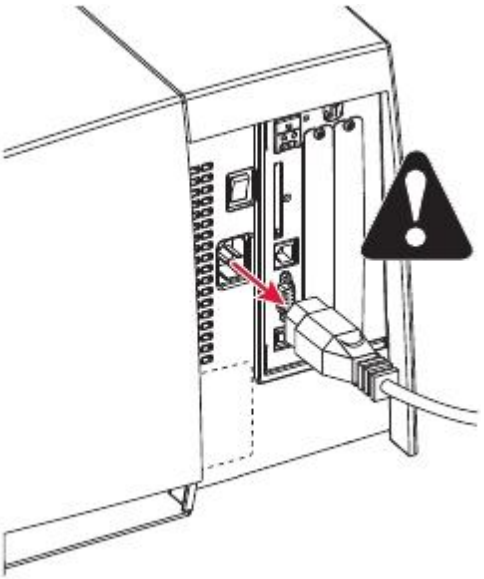
9Pullouttthecleaningcard.Ifnecessary,repeattheprocesswith afreshcleaningcard.



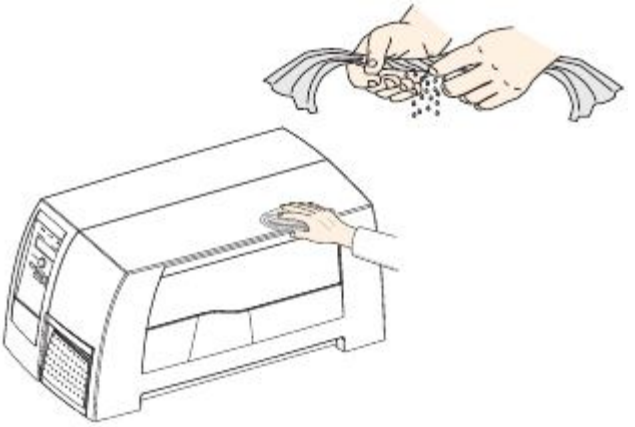
10 Allow the cleaned parts to dry before loading any media (and ribbon).

External Cleaning

1 Always remove the power cord before cleaning!

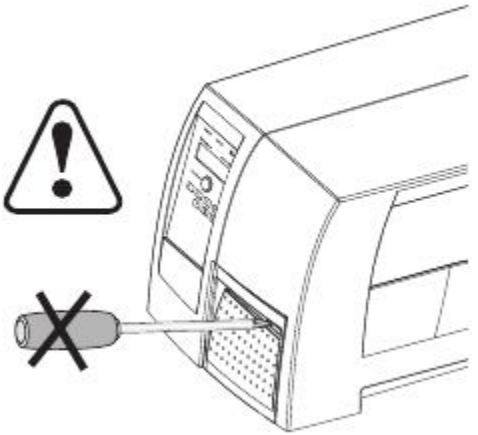


2Wipeexternalsurfaceswithasoftclothslightlymoistened withwateroramilddetergent.



3Neverspraytheprinter.Protectitfromwaterwhencleaning thepremises.

4Neveruseanysharptoolsforremovingstucklabels.The printheadandrollersaredelicate.



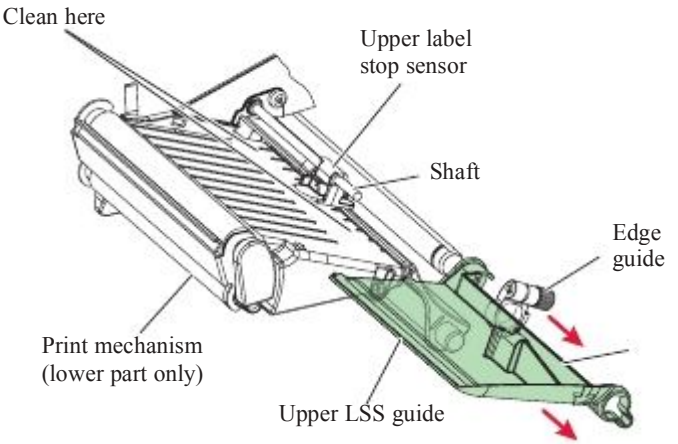
Cleaning the Media Guides

Bothpartsofthelabelstopsensor,whichcontrolsthemediafeed, arecoveredbyplasticguides.Theguidesaretransparenttoallow thelighttopassbetweenthetwopartsofthelabelstopsensor. Theseareasmustbekeptcleanfromdust,stucklabels,and adhesiveresidue.

Iftheprinterstartstofeedourlabelsinanunexpectedway,pull outtheupperguideasdescribedbelowandcheckforanyobject thatmayblockthebeamoflight(dust,stucklabels,adhesive residue,etc.).Ifnecessary,cleantheguidesusingacleaningcard orasoftclothsoakedwithisopropylalcohol.Donotuseany othertypeofchemical.Becarefulnottoscratchtheguides.

Warning

Isopropylalcohol[$(CH_3)_2CHOH$;CAS67-63-0]isahighly flammable,moderatelytoxic,andmildlyirritatingsubstance.



To clean the media guide

1 Loosen the screw on the edge guide.

2 Pull both the upper LSS guide and the edge guide straight out.

3 After cleaning, put back the parts in reverse order making sure that the LSS shafts fits into the holder on the upper LSS guide.

Printhead Replacement

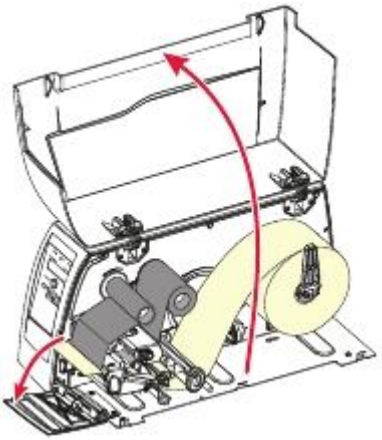
The printhead is subject to wear both from the direct thermal media or ribbon and from the rapid heating and cooling process during printing. Thus, the printhead will require periodic replacement.

Time between printhead replacements depends on the print images, the type of direct thermal media or ribbon in use, the amount of energy to the printhead, the print speed, the ambient temperature, and several other factors.

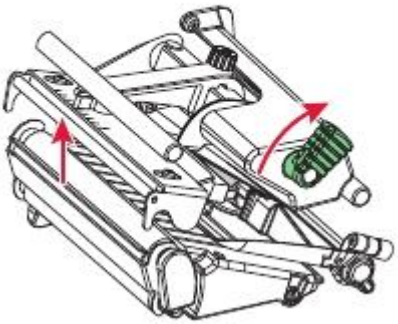
While replacing the printhead, the power must be off. The firmware will not detect the new printhead resistance until the printer has been restarted.

To replace the printhead

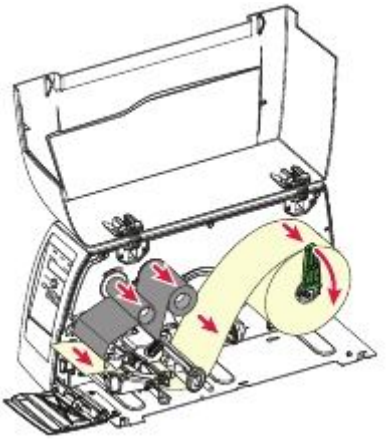
1Openthefrontandsidedoors.



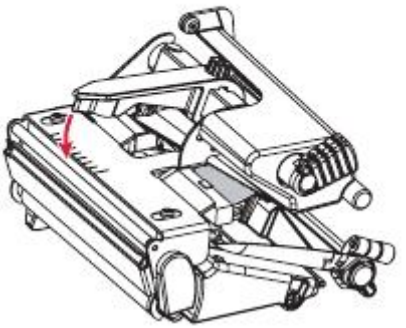
2Turntheprintheadliftleverclockwisetoraisetheprinthead.



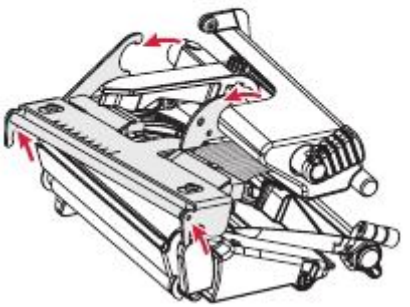
3Removeanymediaandtransferribbon.



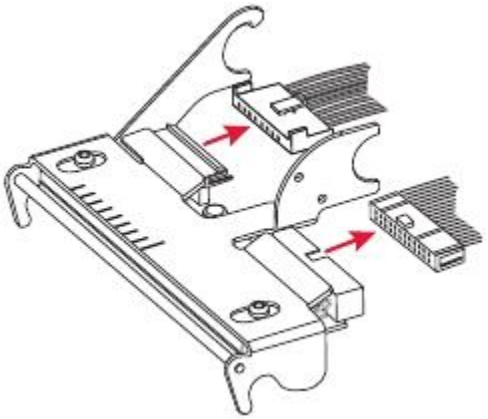
4Pulltheprintheadbracketawayfromthemagnetinthe pressurearm.



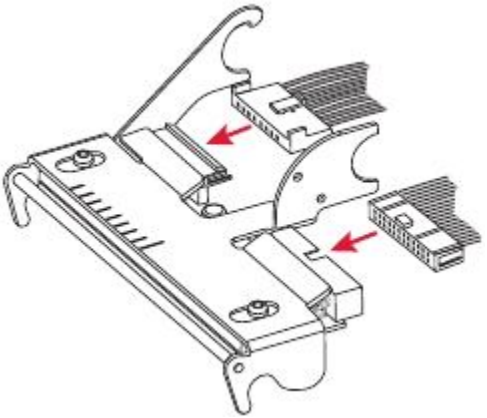
5Disconnecttheprintheadbracketfromtheprintmechanism asindicatedbythearrowsandpulloutthepr intheadasfaras thecablesallow.



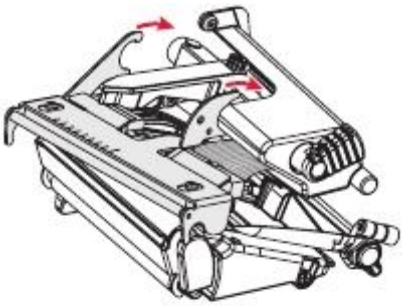
6Disconnectthecablesfromtheprinthead.Notethesnap-lock ontheinnerconnector.Pullattheconnectors—notatthe cables!



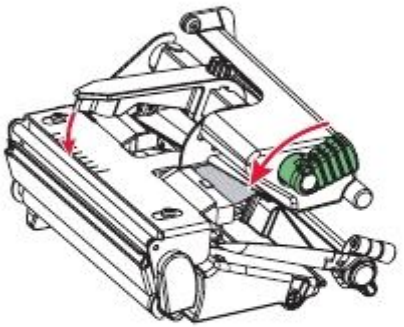
7Connectthetwocablestothereplacementprinthead.



8 Put back the printhead in reverse order and check that the printhead cables run freely.



9 Turn the printhead lift lever counterclockwise so the magnet engages the printhead bracket.



10 Load a new supply of media and ribbon, as described earlier in this manual.

Media Jams

Shouldamediajamoccurintheprintmechanism,proceedthis waytoclearit:

- Always switch off the power before starting to clear the jammedmedia.
- Raisetheprintheadandpulloutthemedia.
- Ifthemediahasbeenwounduporhasstuckontheplaten roller,carefullyremoveitbyhandwithoutusinganysharp toolsthatcandamagethedelicateplatenrollerorprinthead. Avoidrotatingtheplatenroller.

Ifyoumustpullawaythemediabyforcecausingtheplaten rollertorotate,itisveryimportantthatthepowerhasbeen offforaminuteormore.Ifnot,theelectronicscanbe damagedbeyondrepair.

- Cutoffanydamagedorwrinkledpart.
- Checkifthereisanyadhesivesomewhereintheprint mechanism,cleanusingacleaningcardorcottonswabsoaked inisopropylalcohol.

Isopropylalcohol[$(CH_3)_2CHOH$;CAS67-63-0]isahighly flammable,moderatelytoxic,andmildlyirritatingsubstance.

- ReloadthemediaasdescribedinChapter4.
- Switchonthepower.
- Readjustthemediafeedbypressingthe**Feed/Pause**button.

11 Adjustments

Thischapterdescribeshowtheoperatorcanadjusttheprinter.
Thechaptercoversthefollowingtopics:

- Narrowmediaadjustment
- Labelstopsensorpositionadjustment
- Printheadpressureadjustment
- Ribbonbreakshaftadjustment

Narrow Media

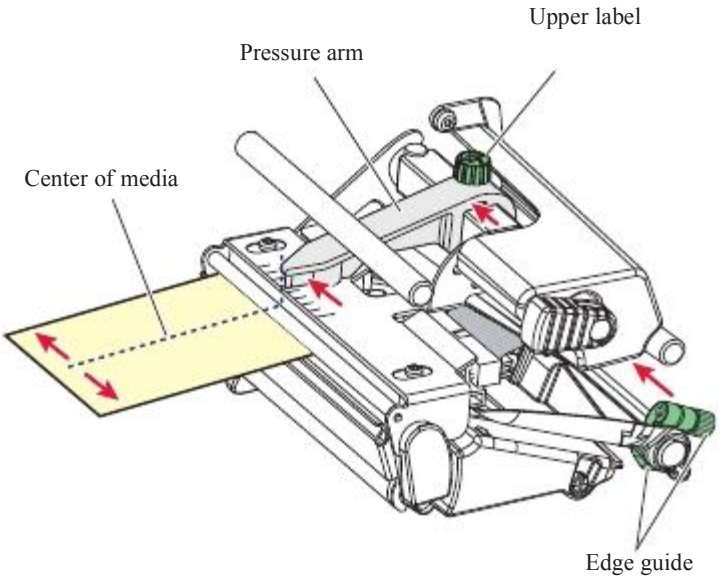
Theprinterisfactory-adjustedforfull-sizemediawidth.When usingmedialessthanfullwidth,itisrecommendedthatyou adjustthepositionofthepressurearmsoitbecomescentered withthemedia.Thereby,anevenpressureacrossthemediais obtained.

Apoorlyadjustedpressurearmmaybedetectedbyaweaker printoutoneithersideofthemediapath.

Toadjustthepressurearm,proceedasfollows:

- Loosentheknurlednutthatholdsthepressurearm.Movethe arminwardsoroutwardsuntilthearrowonthetipofthearm becomescenteredwiththemedia.

  Whilemovingthearm,pushatthepartwherethescrewis situated,notatthetip.Ifthearmishardtomove,liftthe printheadandpulltheprintheadbracketfreefromthe magnetinthearm.
- Afterhavingcenteredthearm,lockitbytighteningthenut.
- Remembertoadjustalledgeguidestoo.

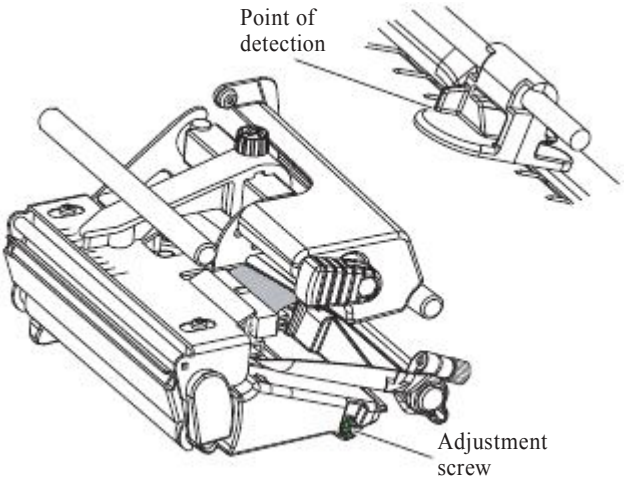


Label Stop Sensor

Thelabelstop/blackmarksensor(LSS)isaphotoelectricsensor thatcontrolstheprinter’smediafeedbydetectinggapsbetween labels,orslotsorblackmarksincontinuousstock,dependingon theprinter’ssetupinregardofmediatype(Forhelp,see“Setting UpthePrinter”onpage47.)Anobviousprerequisiteisthatthe LSSmustbealignedwiththegaps,slots,orblackmarks.Ifusing-irregularlyshapedlabels,aligntheLSSwiththefronttipsofthe labels.

TheLSScanbemovedlaterallyfromtheinneredgeofthemedia pathand57mm(2.24in)outwards,whichcorrespondstothe centerlineoffullwidthmedia.Thereisonepartofthesensoron topoftheuppermediaguideandanotherpartunderneaththe lowerguide.Usingastraight-slotscrewdriver,turnthe adjustmentscrewuntilthepointofdetectionontheuppersensor becomesalignedwiththecenteroftheslotsormarksinthe media,whenyoulookintotheprintmechanismfromthefront withtheprintheadlifted.

- Rotatethescrewclockwisetomovethesensortowardsthe centersection.
- Rotatethescrewcounterclockwisetomovethesensor outwards,awayfromthecentersection.



IntheTest/ServicepartoftheSetupMode,youcantestthelabel stopsensorifyouhaveadetectionproblem.

Themenuonlyprovidesindicationsfromthelabelstopsensor unit.Thetestingmenucandetermineifthesensorunitisnot physicallyinposition,isblockedbydustorstucklabels,oris defectiveinsomeway.Furthermore,thisisanaidifmediahas detectioncomplications.

Note:ThereisnowaytoadjusttheLSS-function;themenus onlyindicatevaluesobtainedfromtheLSS.

- Checkthattheprinterissetupforthetypeofmedialoaded inyourprinter(SetupMode→Media→Mediatype→Gap, Mark,orContinuous.
- Liftandlowertheprinthead,thenpresstheFeed/Pause button.
- Makesurethatthereisalabel—notagapormark—atthe LSS.
- Checkthatthemediaisroutedasclosetothecentersectionas theguidesallow.
- EntertheSetupMode(Forhelp,see “SetupMode” on page59.)andgotoSetupMode→Test/Service→LSS Test→LSSAuto.
- Themenushouldlooklikethiswiththecursorplacedinthe center:

LSS Auto

- **Gap detection:**

Lifttheprintheadandpulloutthemediaslowly.Whenthe LSSdetectsagaporadetectionslot,thecursormovestothe right.

LSS Auto

- **Mark detection:**

Lifttheprintheadandpulloutthemediaslowly.Whenthe LSSdetectsablackmark,thecursormovestotheleft.

LSS Auto

Itispossibletorefreshthecenteredcursorpositionbypressing the

- Ifthecursorbehavesasdescribedabove,theLSSisworking andisproperlyalignedwiththegaps,slots,orblackmarks.
- Ifthecursordoesnotreactonagap,slot,orblackmark, checkthis:
  - IstheLSSlaterallyalignedwiththeslotsorblackmarks?
  - Areboththeupperandlowerpartof theLSSalignedwith eachother?
  - Isthetransferribbonproperlyloadedsoitdoesnot interferewiththeLSS?Forhelp,see “ThermalTransfer Printing” onpage39.
  - AretheLSSguidescleanandfreefromstucklabelsor otherobjectsthatwillinterferewiththelightthatgoes fromonepartoftheLSStotheother?Ifnot,cleanas describedinChapter10.
  - Doesthemediahavesomekindofpreprintthatcan disturbthedetection?
  - Istheretoolittledifferencebetweentheblackmarksand thesurroundingareas?
  - Doesthelinerhavetoolittletransparency?
  - DoestheLSSworkwithanothertypeofmedia? (RemembertochangetheMediaTypesetup,liftand lowertheprinthead,andthenpressthe**Feed/Pause** button.)

Printhead Pressure

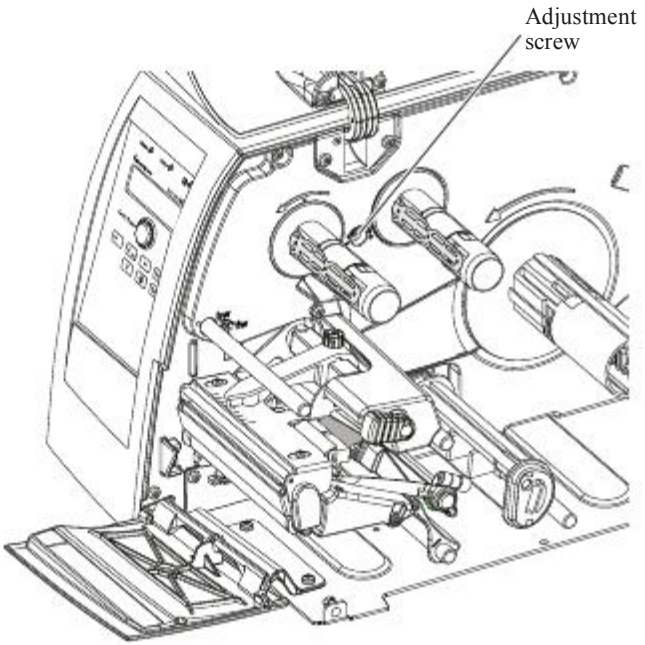
The pressure of the thermal printhead against the direct thermal media is factory-adjusted. However, the use of thicker or thinner media than normal could require the printhead pressure to be readjusted.

Using a straight-slot screwdriver, turn the adjustment screw clockwise for more pressure (+) or counterclockwise for less pressure (-). Print a few labels, preferably test labels (see "Setting Up the Printer" on page 47) and check the printout. Increased pressure generally gives a darker printout and vice versa. Repeat until the desired result is obtained.

To return to the factory setting, tighten the screw (+) as far as it goes and then loosen it (-) four full turns.

Caution

Do not use a higher printhead pressure than necessary, because it may increase the wear of the printhead and shorten its life.

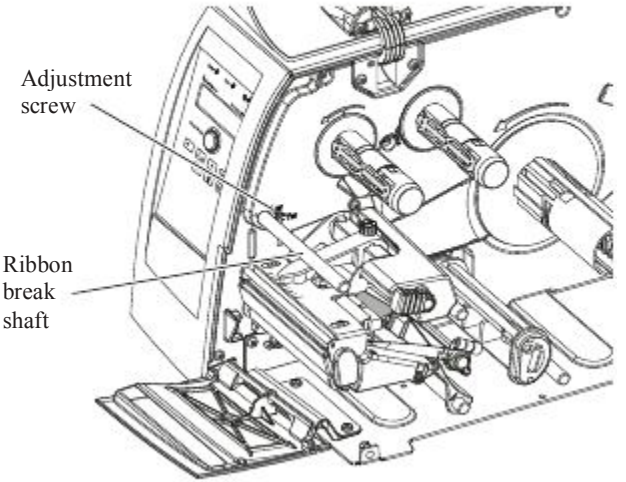


Ribbon Break Shaft

If ribbon wrinkling occurs, you may need to adjust the alignment of the front ribbon break shaft so that it runs parallel to the printhead and the ribbon supply and rewind hubs. The adjustment is done using a straight slot screw that is located immediately behind the front ribbon break shaft.

- If the ribbon tends to slide outwards, turn the screw carefully clockwise (fw) to move the outer end of the break shaft forward.
- If the ribbon tends to slide inwards, turn the screw carefully counterclockwise (bw) to move the outer end of the break shaft backward.

Before readjusting the break shaft, make sure that there is no other cause for the wrinkling of the ribbon. (See "Troubleshooting" on page 71.)



A Technical Data

Thisappendixliststhetechnicaldatafortheprinter.Pleasenote thatIntermecreservestherighttochangewithoutpriornotice andthatthisinformationdoesnotrepresentacommitmenton thepartofIntermec.

Printing	
PrintTechnique	
PrintheadResolution	8dots/mm(203.2 dpi)
PrintSpeed(variable)	100to200mm/sec. (4to8in/sec.) 100to150mm/sec. (4to6in/sec.)
PrintWidth(max)	105.7mm(4.161in)300dpi
PrintLength(max)	
MediaWidth(min/max)	
MediaRollDiameter(max)	213mm(8.38in)
MediaRollCore Diameter	
RibbonWidth(min/max)	25to110mm(1to
RibbonRoll Diameter(outer), max.	
RibbonRollCore Diameter(inner)	
PrintDirections	

Modes of Operation
Tear-Off(Straight-through)
Peel-Off(Self-strip)
Cut-Off

Firmware	
OperatingSystem	v.8.70
SmoothFonts	
Residentscaleable fonts	
Residentbarcodes	
StartupProgram(std)	IntermecShellv8.2

Physical Measures	
Dimensions(W×L×H)	(11.7×21.4×10.3in)
Weight(excludingmedia)	13.5kg(30pounds)
AmbientOperatingTemperature	+5° Cto+40° C(+41° Fto+104° F)
Humidity	20to80%noncondensing

Electronics	
Microprocessor	
On-boardFlash SIMMs	
On-boardSDRAM SIMM	

Power Supply	
ACVoltage	
PFCRegulation	
PowerConsumption	

Sensors
LabelGap/Black Mark/ OutofMedia
PrintheadLifted
RibbonEnd/RibbonYes Low
Papersensor

Controls
ControlLamps
Display
Keyboard
Feed/Pausebutton
Beeper

Data Interfaces
Serial
BarCodeWand
Connectionfor OptionalInterface Boards
FinisherInterface
MemoryCard Adapter

Accessories and Options
SpecialPrintheads
IntegralSelf-strip UnitwithLiner Takeup

Accessories and Options
RotatingMedia SupplyHub
3-inAdapterfor Media
MediaRollRetainer
InternalFanfold Guide
SideDoorwith Keylock
CutterandTray
LabelTakenSensor
RealTimeClock
RS-232Cable
ParallelInterface Cable
ParallelInterface Board
DoubleSerial InterfaceBoard
Serial/Industrial InterfaceBoard
EasyLANEthernet Interface
External Alphanumeric Keyboard
CompactFlashCardsOption
RFIDKit
CompactFlash ProtectionPlate

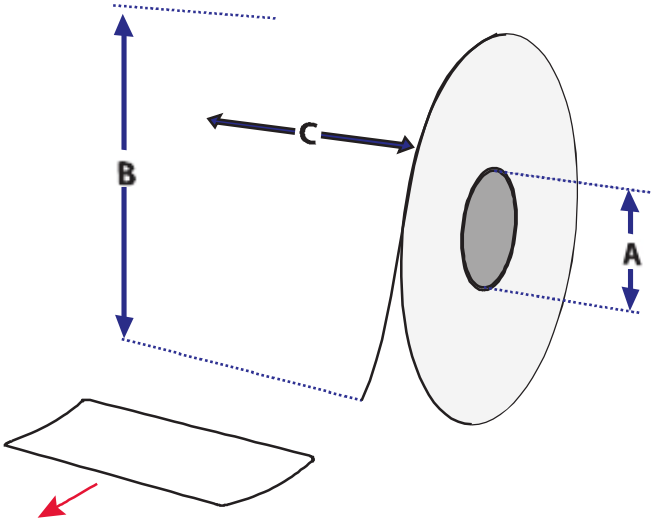
1Themax.printlengthisalsorestrictedbytheamountoffree SDRAM memory.

2Latin,Greek,andCyrillicfontsaccordingtoUnicodestandardareincluded.

B Media Specifications

Thisappendixspecifiesthephysicalmeasuresforvarioustypesof media.

Media Roll Size



Core
Diameter(A),standard:
Diameter(A),withadapter:
Width:Mustnotprotrudeoutsidethemedia.

Caution

Themediamustbewoundupontheincoreinsuchawaythat theprintercanpulltheendfree.

Roll
Max.diameter(B):
Max.width(C):
Min.width,standard(C):
Min. width, fanfold guides (C):40mm(1.57in)

Themaximumrecommendedmediathicknessis175 µm(7mils) withthestandardprintheador220 µm(8.7mils)withaspecial printhead.Thickermediamaybeused,butprintqualitywillbe reduced.Thestiffnessisalsoimportantandmustbebalanced againstthicknesstomaintainprintquality.

Mediarollstobeloadedinsidetheprintershouldbewoundwith theprintablesidefacingoutwards.

Themediasupplymustnotbeexposedtodust,sand,grit,etc. Anyhardparticles,howeversmall,candamagetheprinthead.

Media

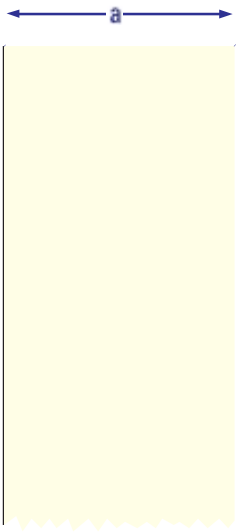
Non-Adhesive Strip

⇐ α ⇒ Μεδια Ωιδτη

Maximum:
Minimum:

Media Type Setup

• Continuous



Self-Adhesive Strip

⇐ α ⇒ Μεδια Ωιδτη (ινχλυδινγ λινερ)

Maximum:
Minimum:

⇐ β ⇒ Λινερ

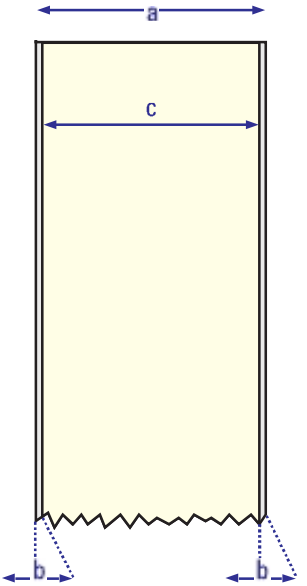
Thelinermustnotextendmorethanatotalof1.6mm(0.06in) outsidethefacematerialandshouldprotrudeequallyonboth sides.

⇐ χ ⇒ Μεδια Ωιδτη (εξχλυδινγ λινερ)

Maximum:
Minimum:

Media Type Setup

- Continuous



Self-Adhesive Labels

⇐ α ⇒ Μεδια Ωιδτη (ινχλυδινγ λινερ)

Maximum:
Minimum:

β ⇒ Λινερ

Thebackingpapermustnotextendmorethanatotalof1.6mm (0.06in)outsidethelabelsandshouldprotrudeequallyonboth side.Recommendedminimumtransparency:40%(DIN53147).

⇐ χ ⇒ Λαβελ Ωιδτη (εξχλυδινγ λινερ)

Maximum:
Minimum:

⇐ δ ⇒ Λαβελ Λενγτη

Maximum:
Minimum:

Underidealcircumstances,aminimumlabellengthof4mm (0.16in)couldbeused.Itrequiresthesumofthelabellength(d) andthelabelgap(e)tobelargerthan7mm(0.28in),thatbatch printingisused,andthatnopullbackofthemediaisperformed. Intermecdoesnotguaranteethatsuchshortlabelswillwork,but itisuptotheusertotestthisinhisuniqueapplication.

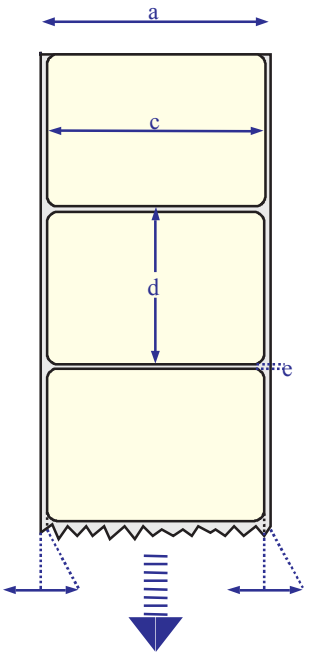
⇐ ε ⇒ Λαβελ Γαπ

Maximum:
Recommended:
Minimum:

TheLabelStopSensormustbeabletodetecttheextremefront edgesofthelabels.

Media Type Setup

· Gap



Tickets With Gaps

⇐ β ⇒ Χοπψ Λενγτη

Max. lengthbetweenslots:dependsonSDRAMsize
Min. length between slots:8.0mm(0.32in)

Underidealcircumstances,aminimumticketlengthof4mm (0.16in)couldbeused.Itrequiresthesumofthecopylength(b) andthedetectionslitheight(e)tobelargerthan7mm(0.28in), thatbatchprintingisused,andthatnopullbackofthemediais performed.Intermecdoesnotguaranteethatsuchshorttickets willwork,butitisuptotheusertotestthisinhisunique application.

⇐ χ ⇒ ΛΣΣ Δετεχτιον Ποσιτιον
Variable, seeChapter11.

⇐ δ ⇒ Δετεχτιον Σλιτ Λενγτη
Thelengthofthedetectionslit(excludingcornerradii)mustbe minimum2.5mm(0.10in)oneithersideoftheLSSdetection position(e).

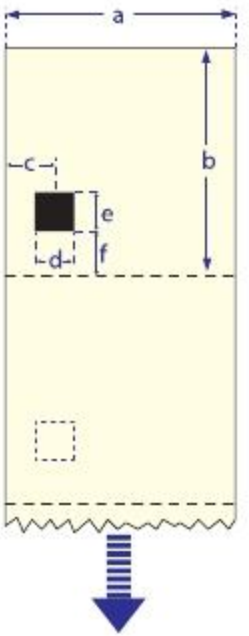
⇐ ε ⇒ Δετεχτιον Σλιτ Ηειγητ

Maximum:
Recommended:
Minimum:

Media Type Setup

· Mark

Note:Donotallowanyperforationtobreaktheedgeofthe mediaasthismaycausethemediatosplitandjamtheprinter.



Tickets With Black Mark

⇐ α ⇒ Μεδια Ωιδτη

Maximum:
Minimum:

⇐ β ⇒ Χοπψ Λενγτη

Minimum:
Maximum:

⇐ χ ⇒ ΛΣΣ Δετεχτιον Ποσιτιον

Variable, see Chapter 11.

⇐ δ ⇒ Βλαχκ Μαρκ Ωιδτη

The detectable width of the black mark should be at least 5.0mm (0.2in) on either side of the LSS detection point.

⇐ ε ⇒ Βλαχκ Μαρκ Λενγτη

Maximum:
Common:
Minimum:

⇐ ϕ ⇒ Βλαχκ Μαρκ Ψ–Ποσιτιον

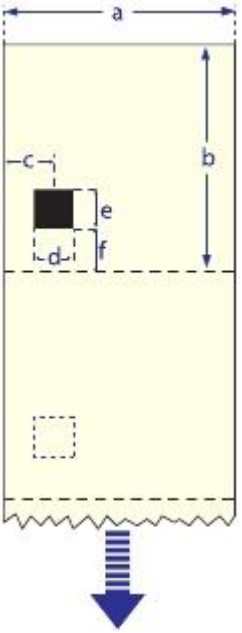
It is recommended that you place the black mark as close to the front edge of the ticket as possible and use a negative Stop Adjust value to control the media feed, so the tickets can be properly torn off.

Media Type Setup

- Mark

- **Note:** Preprint that may interfere with the detection of the black mark should be avoided.

- **Note:** The black mark should be non-reflective carbon black on a whitish background. Do not allow any perforations to break the edge of the media as this may cause the media to split and jam the printer.


a
b
c
d
e
f

C Interfaces

Thisappendixdescribestheinterfaceconnectorsfoundonthe printer’srearplate.Itcoversthefollowingtopics:

- RS-232interface
- USBinterface
- Optionalinterfaceboards

RS-232 Interface

Protocol

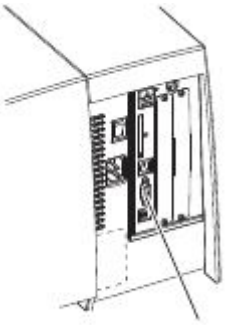
Protocol
Defaultsetup:
Baudrate:
Char.length
Parity:
Stopbits:
RTS/CTS
ENQ/ACK:
XON/XOFF:
NewLine:

TochangetheRS-232interfacesettings,see “SettingUpthe Printer” onpage47.

Signalsonprinter’sserialport

DB-9
1
2
3
4
5
6
7
8
9

*Theexternal+5Vislimitedto500mAandisautomatically switchedoffatoverload.



Interface Cable

Computerend:Dependsoncomputermodel

Printerend:

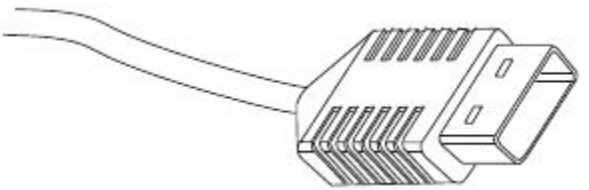
USB Interface

ThisprintersupportsUSBv1.1(alsocalledUSB2.0fullspeed). TousetheUSBinterfaceforprintingfromaPC,youneeda specialIntermecUSBprinterdriverinstalledinyourPC.

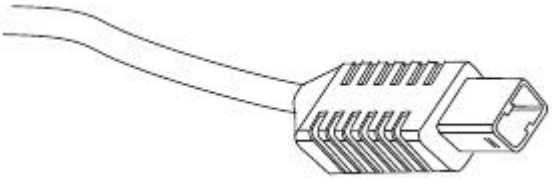
Theprinterisasocalled“self-powereddevice.”Werecommend thatyouonlyconnectoneprintertoeachUSBportonthehost, eitherdirectlyorviaahub.Otherdevices,likeakeyboardanda mouse,canbeconnectedtothesamehub.Ifyouneedtoconnect morethanoneIntermecUSBprintertoahost,youshoulduse differentUSBports.

UsingaUSBClassA/Bcable,connecttheClassAplugtoyour PCorhubandtheClassBplugtoyourprinter.

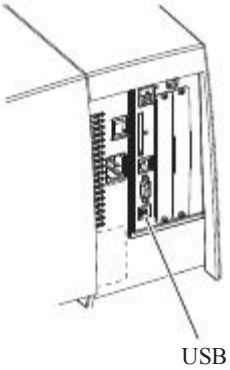
TheUSBinterfaceisessentiallyaone-waycommunication interfaceandisthusnotrecommendedforprogramming.There isnocommunicationsetupfortheUSBport.



USB Class A connector. Connect to PC or hub.



USB Class B connector. Connect to USB receptacle on the printer’s rear plate

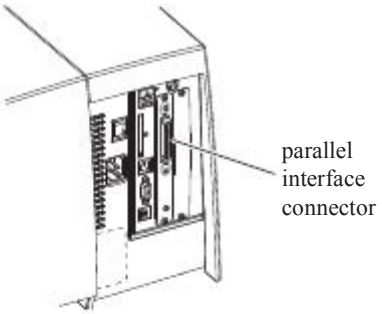


Optional Interfaces

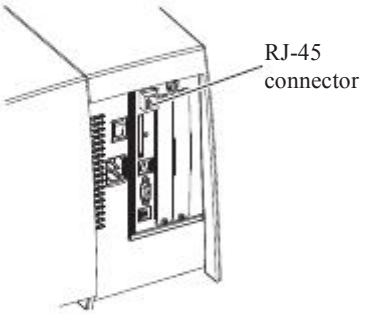
Theprintercanoptionallybefittedwithan IEEE1284Parallel InterfaceBoardattheright-handsideoftheprinter’srearplate.

RegardlessofifanyParallelInterfaceBoardisinstalled, the printercanalsobefittedwithoneofthefollowingEasyLAN interfaceboardsforconnectiontoaLocalAreaNetwork(LAN):

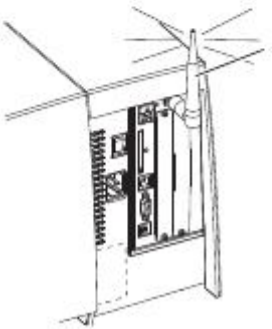
- EasyLANEthernetInterface
- EasyLANWirelessInterface



IEEE 1284 Parallel Interface Board



EasyLAN Ethernet Interface



EasyLAN Wireless Interface

D Intermec Supplies

Thisappendixdescribeshowtosetuptheprinterforvarious typesofdirectthermalmediaorcombinationsofthermaltransfer ribbonsandreceivingfacematerialsmarketedbyIntermec.

Setting the Media Sensitivity Number

Mediasensitivityisimportantbecauseyouuseittooptimize printqualityandprintspeed.Thethree-digitmediasensitivity number(MSN)specifiestheamountofheatrequiredbythe printheadtoimagealabel.Theamountofheatthateachrollof mediaorribbonrequiresisuniqueduetodifferentchemistries andmanufacturingprocesses.

Intermechasdevelopedheatingschedules(theamountofheat requiredtoimagealabel)toproducethehighestpossibleprint qualityforIntermecmediaandribboncombinationson Intermecprinters.

Youcanachievethebestprintqualityontheprinterbyusing onlyIntermecribbonandmediaproducts.Thistableliststhe defaultMSN:

Default MSNs

Media Type
Directthermalmedia(2to5ips)
Directthermalmedia(6to8ips)
Thermaltransfermedia(2to10ips)

IfyouneedtodetermineanMSN,obtainthepartnumberof yourmediaandcall1-800-755-5505,press1andthen1.The partnumbermaybeprintedontheoutsideoftheboxcarton.

UsethePrintSetsoftware,yourthird-partysoftware,ortheIPL commandsettochangetheMSN.Ifyouwanttoseethecurrent sensitivitysettingofyourprinter,printoutasoftware configurationlabel.

To print a software configuration label

1. TurntheOn/Offswitchtotheoffposition.
2. PressandholdtheFeed/Pausebuttonwhileturningthe printeron.Theprinterprintsoutahardwareconfiguration label.
3. SettheDIPswitchestoprintoutthesoftwaretestlabel.

TopBank
BottomBank

4 Hold the Feed/Pause button down for 1 second. The printer prints out the software configuration label.

5 Return the DIP switches to their original settings.

6 Turn the printer power off and then on.

Setting the MSN for Intermec Media and Ribbon

For direct thermal media, use the three-digit sensitivity number located on the roll of media to set the sensitivity number. You can also use the values from the tables in the next section.

For thermal transfer media, you need to look in two places to determine the sensitivity number. The sensitivity number on each roll of thermal transfer media or ribbon has an asterisk (*) in place of one of the digits. On thermal transfer media, the rating contains the first and second digits, with an asterisk in place of the third digit. The number on the ribbon has the first and third digits, with an asterisk in place of the second digit.

To optimize the sensitivity number for thermal transfer media, you combine the digits as in this example:

Example: Optimizing the Sensitivity Number

Media or Ribbon	Sensitivity
Thermal transfer media	
Thermal transfer ribbon	

Setting the MSN for Other Media and Ribbon

If you are not using Intermec media and ribbon, or you misplaced your packaging with the three-digit sensitivity number label on it, you can set the approximate sensitivity number. The first column of the Direct Thermal and Thermal Transfer Media Sensitivity Settings tables lists the approximate sensitivity settings. To achieve acceptable print quality, enter the three-digit MSN (for example, 800).

If you are unsure of how to set the MSN, start with the highest setting, which provides the lowest energy (800 for thermal transfer and 700 for direct thermal), and work your way down until you achieve the best print quality. You can also use PrintSet's PrintQuality Wizard to help achieve print quality.

Direct Thermal Media Sensitivity Settings

Approximate Sensitivity Numbers
700 Series High Sensitivity
400 Series Medium Sensitivity
100 Series Low Sensitivity

Thermal Transfer Media and Ribbon Sensitivity Settings

Approximate Sensitivity Numbers	
800SeriesHigh Sensitivity(Paper)	
	854
600SeriesMedium687 Sensitivity(Plastic)	
	677
	673
	647
	633
	627
	623
500SeriesMedium567 Sensitivity(Paper)	
	565
	563
	533
	527
	513
300SeriesLow Sensitivity(Plastic)	
200SeriesLow Sensitivity(Kapton)	
	236
	226
	222

Worldwide Headquarters
6001 36th Avenue West
Everett, Washington 98203
U.S.A.
tel 425.348.2600
fax 425.355.9551
www.intermec.com

EasyCoder PM4i Bar Code Label Printer User's Guide (IPL Version)
934-020-001
P/N 934-020-001